

college **AND UNIVERSITY** **business**

MARCH 1959

The Trustee's Job

What Do University Employees Want?

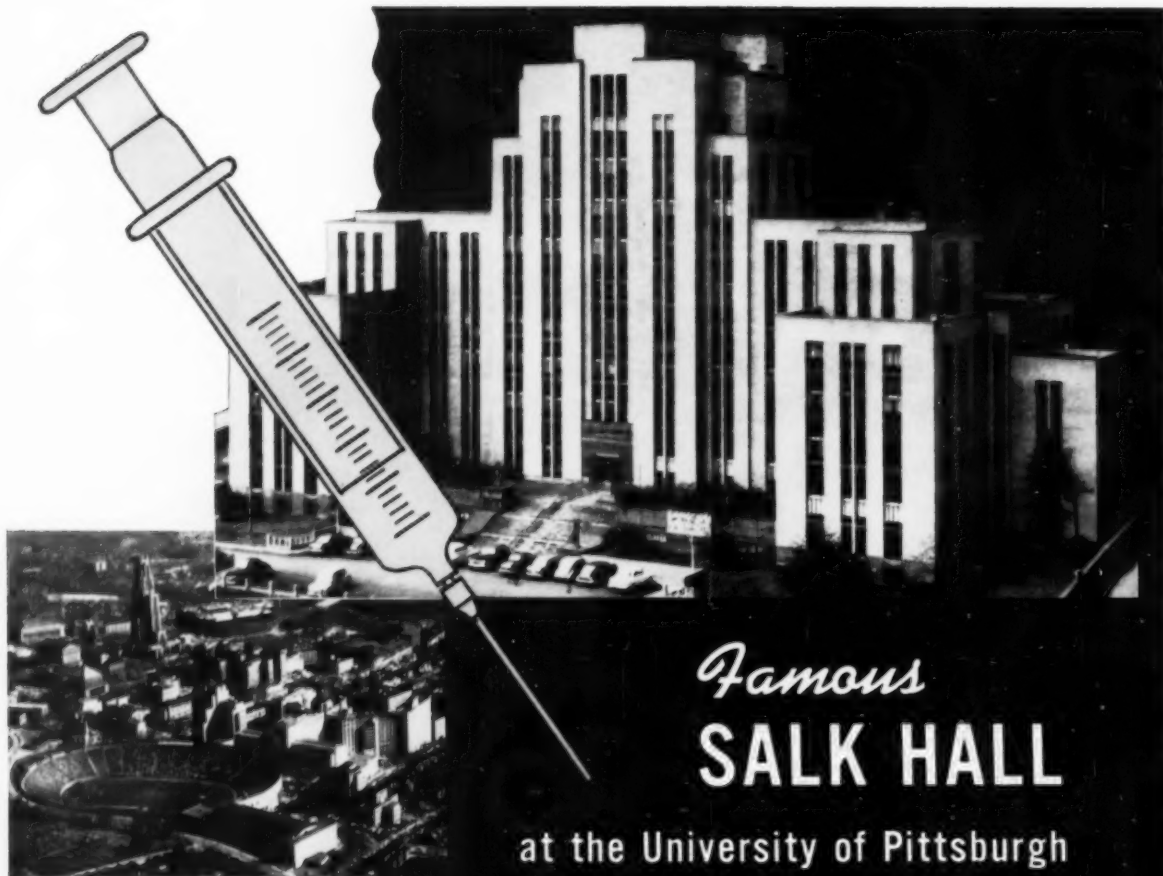
Practical Approach to Laboratory Design

Round-the-Clock Food Service

Instructional Cost Studies



VENDING MACHINE INSTALLATION, UNIVERSITY OF KANSAS, LAWRENCE (page 36)



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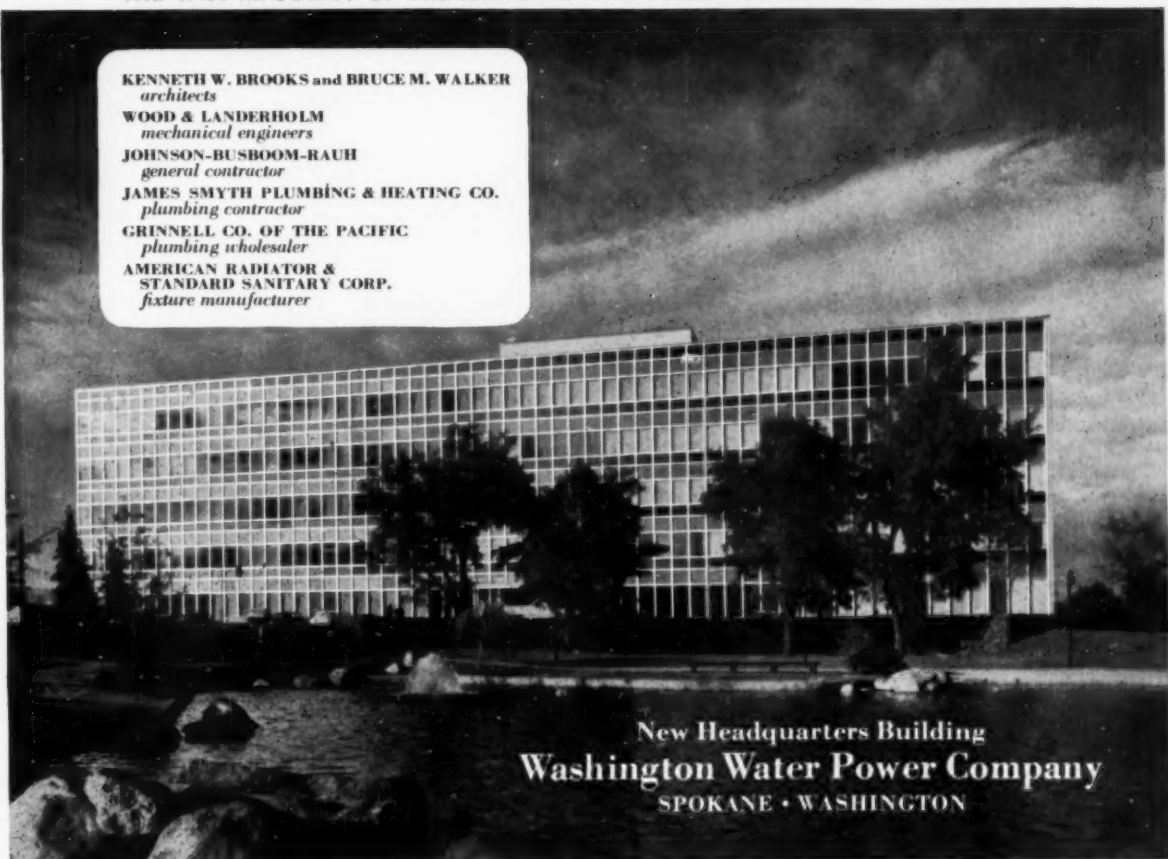
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AMONG THE AUTHORS: Russell I. Thackrey, executive secretary of the American Association of Land-Grant Colleges and State Universities since 1947, analyzes various misunderstandings and errors that have developed in regard to higher education in this country. Mr. Thackrey has been associated with land-grant colleges for many years, beginning his career in the department of journalism at Kansas State in 1932; he served as an assistant professor of journalism at the University of Minnesota from 1937 to 1940, and returned to Kansas State College in 1940 as head of the department of journalism, continuing in that capacity until 1944. . . . Robert L. Williams, administrative dean of the University of Michigan since 1958 and a member of the administrative staff since 1936, presents his views on constructional cost studies conducted in the field of higher education. He has written more than a hundred articles in professional journals. . . . Kathryn G. Hansen, executive secretary of the University Civil Service System of Illinois since 1952, reports on the results of a survey on the satisfactions university employes seek in their jobs.



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QUESTIONS AND ANSWERS

Fire Safety Standards

Question: Should the university administration be responsible for establishment of fire safety standards in fraternity and sorority houses? — M.K., Ohio.

ANSWER No. 1: In those areas in which the regularly constituted authorities, city, county or state, make and enforce regulations and carry out inspections covering fire and/or safety standards, it would be an unnecessary duplication for the university administration to establish such regulations. In some instances, however, the university administration may find it necessary to see that the proper authorities make the inspections and assist them in obtaining compliance with the regulations. There are two exceptions to this conclusion: (1) when such regulations are nonexistent, and (2) when the established regulations are below the standards of the National Fire Protection Association. Under these two conditions, the university administration has an obligation to establish the necessary standards.

When fraternities and sororities own or lease and operate their quarters, it becomes a legal question whether the university has a right to insist on standards higher than those established by the duly constituted authorities. When the fraternity and/or sorority occupy premises owned by the university, it would appear that any reasonable standards could be established by the university even though higher than the legal requirements.

While the establishment of these standards is essential, enforcement becomes a difficult matter unless backed by legal authority. — W. P. WETZEL, superintendent of buildings and grounds, Temple University.

ANSWER No. 2: While a university may have no legal responsibility for establishment of fire safety standards in fraternity and sorority houses, in most instances it approves such living quarters after making inspections. As a part of these inspections, fire safety should be determined and corrections suggested, if needed. This usually can be accomplished easily by asking for

the cooperation of local fire department inspectors. They are quite willing and frequently anxious to give this service. — A. F. GALLISTEL, director of physical plant planning, University of Wisconsin.

Student Loans

Question: What should be the criteria for allocation of student loans? Will ownership of an automobile disqualify a potential loan recipient? Should the business manager be on the loan committee? — G.T., Ore.

ANSWER: The criteria for the allocation of student loans is, to a considerable extent, related to internal administrative policy, with respect to the broad pattern of student aid.

For instance, it is true that loans to liberal arts students going on to graduate work and loans to premedical, prelegal and preministerial students are high risk loans, because the men who complete these professional studies are frequently in a low earnings bracket for several years as they try to establish themselves in the field of their profession. Such observations in a particular college frequently establish criteria for administration of loans.

It would seem desirable that where there is a need for aid, and the resources of the family are at the minimum, as much scholarship help as possible should be granted and a minimum of loans assigned. However, where a family has need but has evidence of resources, in terms of property ownership or earning power but where a strained financial situation exists because of an extenuating circumstance, a maximum of loans could be considered.

Ownership of an automobile should downgrade priority of a potential loan recipient, unless the automobile is required transportation for a nonresident student. The automobile represents a resource and operating cost that doesn't seem to support basic need.

Yes, the chief business officer should be on the loan committee, because his organization has responsibility for collection of loans. — JOHN N. SCHLEGEL, treasurer, Lafayette College.

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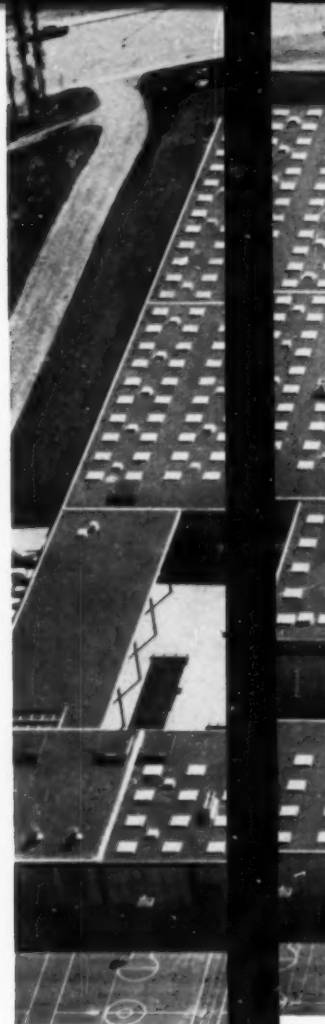
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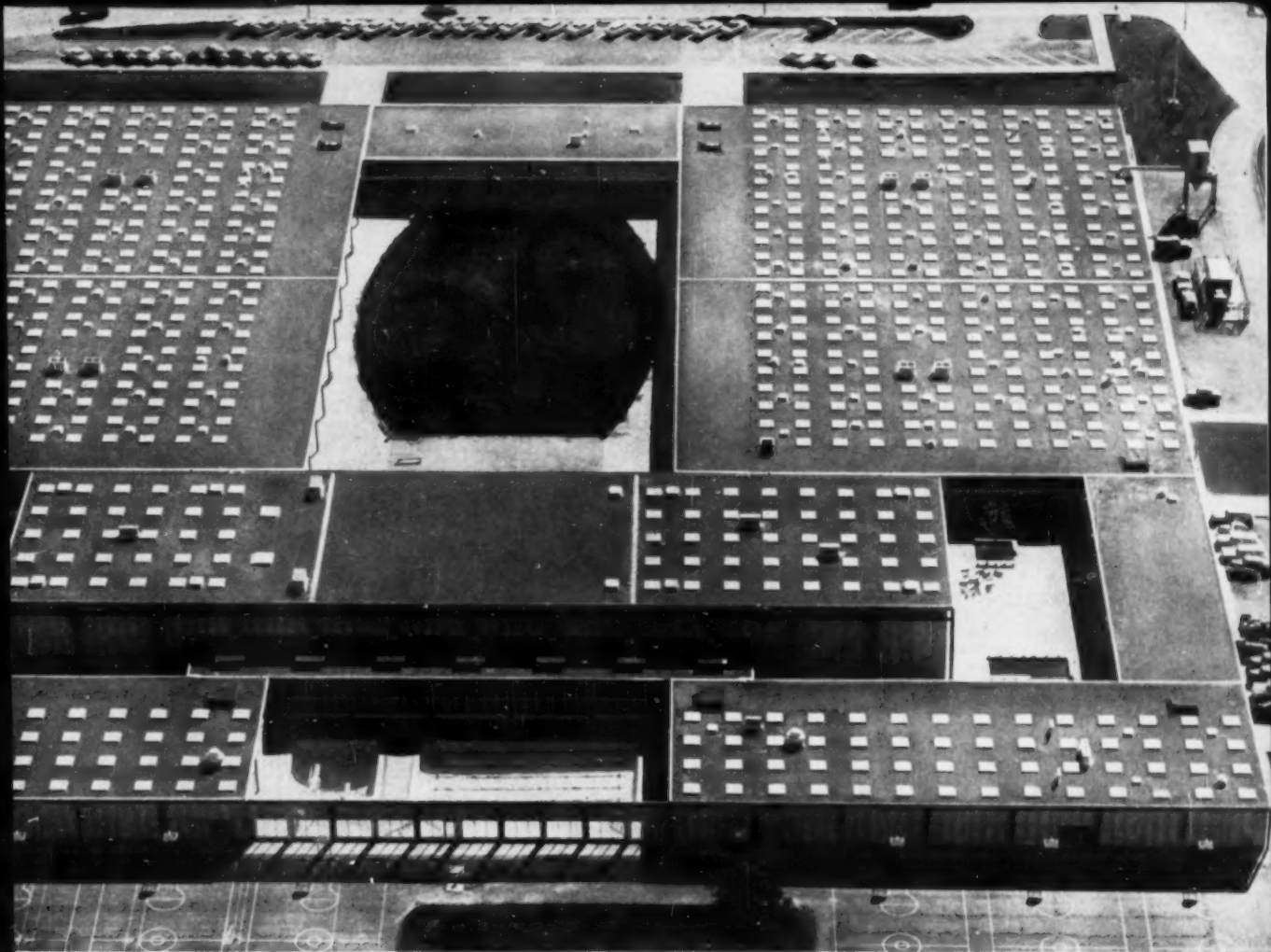
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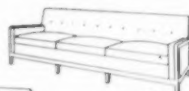
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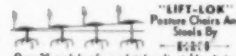
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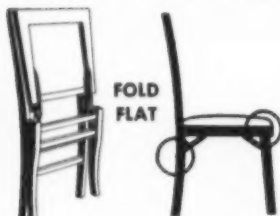


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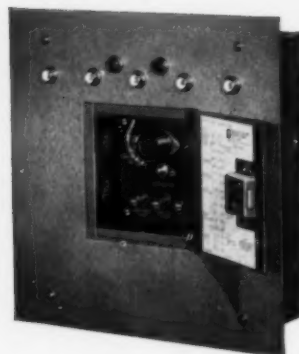
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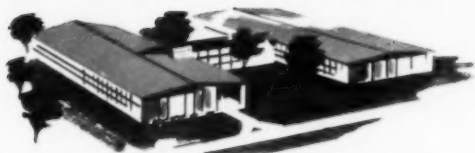
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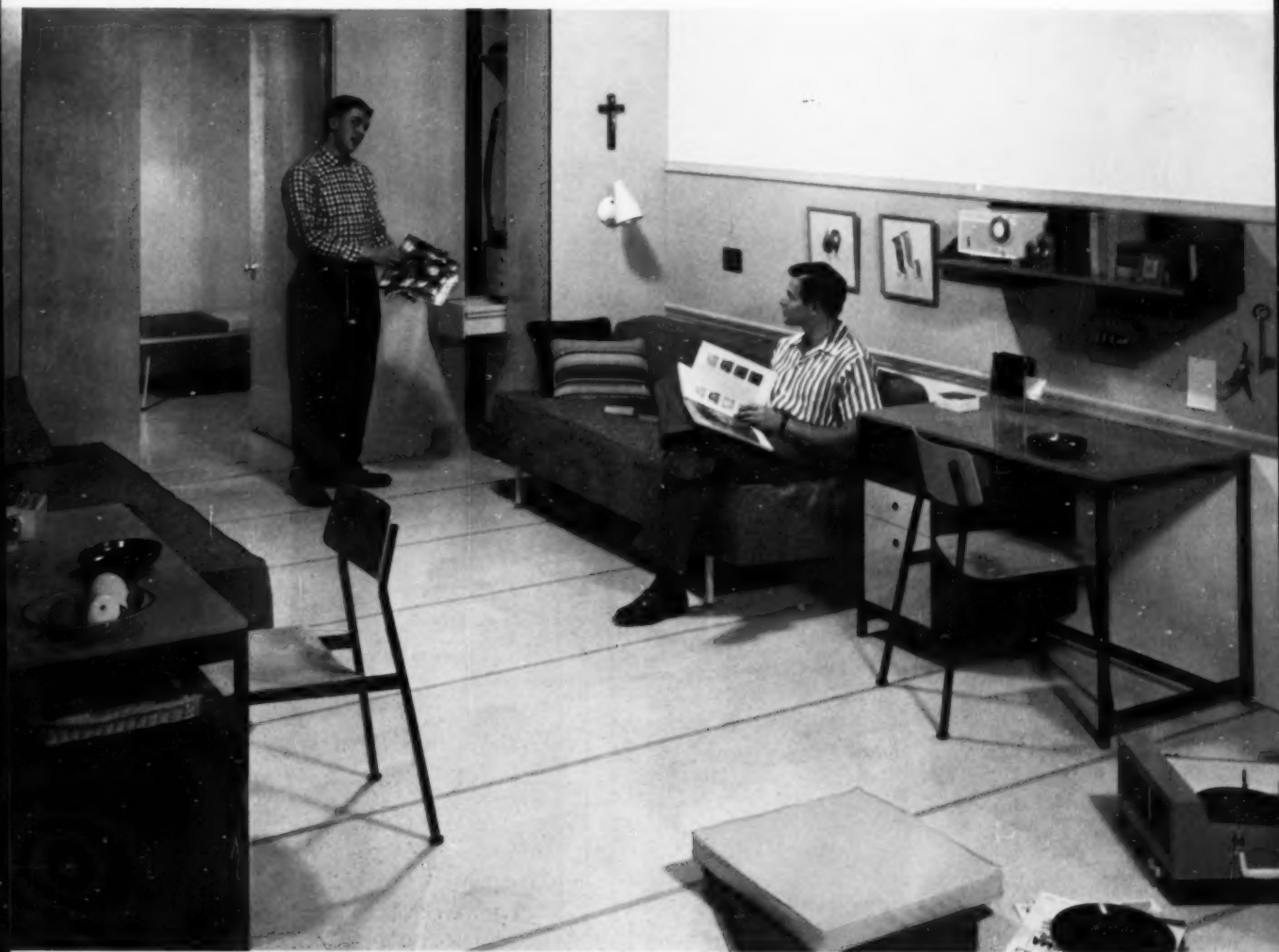
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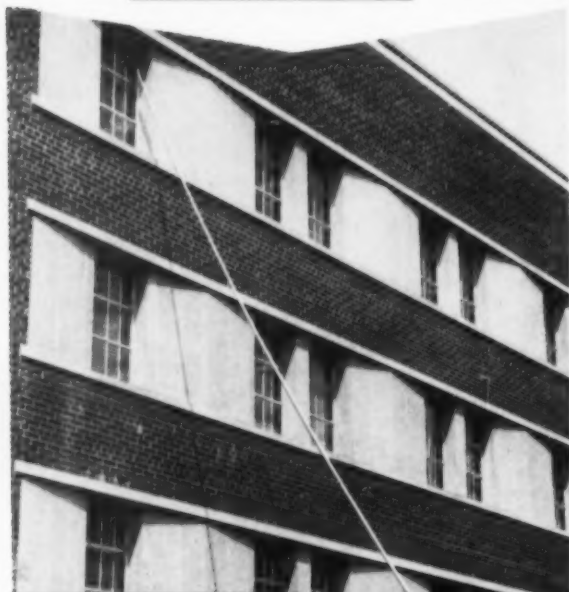
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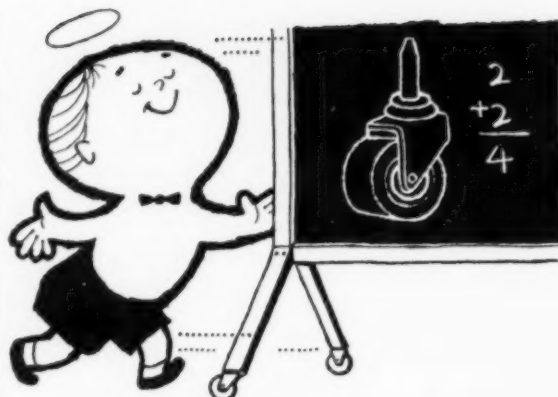
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see pages 86-87

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THE BRUNSWICK-BALKE-COLLENDER COMPANY, School Equipment Division, Chicago 5



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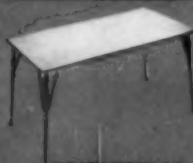
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Accounting Officers, Let's Speak Out in Chorus

LLOYD MOREY

President Emeritus and Former Comptroller, University of Illinois



FOR nearly four decades college and university accounting and financial reporting have had constructive attention. Few if any areas of accounting have had more thorough or more competent study. The result is a well defined set of principles and procedures that have now been tested and confirmed by long and widespread usage.

Few activities have shown greater progress or more unified results. No millenium has been reached, but standards have been developed through thorough and competent study and these standards have been generally accepted and applied. While minor variations exist and a few institutions have chosen to continue to follow their own patterns of procedure, the general picture is impressive.

Most public accountants in their institutional audits have accepted these developments as establishing "generally accepted accounting principles" and have certified accordingly in their reports. Officially, however, professional accounting organizations have given scant recognition to them, even though their committees collaborated in their preparation.

A case in point is American Institute of C.P.A.'s Statement 28, "Special Reports," October 1957. This bulletin states that "when [the auditor] has undertaken to report on matters outside (corporate business enterprises organized for profit) he has had little besides his own experience and judgment to guide him. . . ." ". . . in many cases (e.g. educational institutions) generally accepted accounting principles have not been as clearly defined as those applicable to business enterprises organized for profit. . . ."

Such statements not only are without basis in fact but fail to give recognition to developments competently performed and widely applied, as every college accounting officer knows.

In no field of financial operation are the bases for accounting codified in a more definite and comprehensive manner than those by the 1952 National Committee in Volume 1 of "College and University Business Administration." Call them principles, standards or procedures, they are in any event guideposts and earmarks for adequate and useful methods conducive to proper financial reporting.

Occasionally some individual accountant in his first contact with such problems has drawn erroneous conclusions and has voiced proposals to apply commercial accounting practices unreservedly to educational operations. The proposals have always been short-lived, because the accountant soon gained a better understanding as he proceeded with his assignment.

Now comes a university professor of business administration, writing in June and December 1958 *Journal of Accountancy*, averring that the "financial problems" leading to "the recent rash of fund raising campaigns could have been avoided by better accounting." The form of such accounting, he contends, should be the wider use of commercial accounting practices, specifically the booking of depreciation (without funding of reserves) on educational properties. Other equally ill-founded allegations add up to the general charge of poor management of college finances.

The article argues that little if any difference exists in the needs of accounting for enterprises privately owned and operated for profit and those like colleges and universities that are otherwise organized and have different objectives. It infers that failure to carry out commercial accounting practices has contributed to inadequate resources in our institutions. (Another article along a similar vein appears in June 1958 *New York Certified Public Accountant*.)

Any college accounting officer will recognize the fallacy of such assumptions and the general uselessness of such procedures. They should not go unchallenged.

Hence, neither operating budget nor plant funds are helped by such a process unless the charge can be and is funded. The practical possibility of doing this is non-existent in most institutions.

Intelligent and constructive criticism is always in order. But the people who have responsibility are the ones best prepared to determine how things can best be done.

College and university accounting officers have been prone to be quiet when their methods have been attacked and when faulty proposals relating to them have been offered by uninformed persons. It is time that they begin to speak in chorus in behalf of the methods that are sound and are of proven merit. ■

LOOKING FORWARD

Loyalty Oaths Again

CONGRESS seems always to be looking under the bed for a subversive influence when contractual relationships with colleges and universities are concerned.

The latest example is found in Title X, Section 1001 (f) of the National Defense Education Act of 1958. This requires students seeking loans to disclaim by affidavit belief in or support of groups advocating overthrow of the government by force.

College and university administrators strenuously object to having education singled out for such attention and discrimination. As one administrator put it, "I wonder why our legislators feel it is necessary to require an affirmation of loyalty from students as a condition for their receiving the benefits of a program which has been enacted not for them but presumably in the national interest. No one asks farmers to sign an oath as a condition for receiving crop payments."

The issue is not whether college or university personnel is disloyal. The basic issue is that one segment of society should not be discriminated against. To do so implies a second-class citizenship for them. This is hardly consistent with the basic objectives of the National Defense Education Act of 1958.

Title VII, N.D.E.A.

THOUGH unduly delayed, instructions to college and university administrators for implementing Title VII of the National Defense Education Act of 1958 were given general release recently. An Advisory Committee on New Educational Media has been appointed, and held its first meeting in mid-December. It set an arbitrary cut-off date of February 1 for applications for research proposals. The second meeting of the committee will be held March 5, 6 to evaluate these proposals.

All applications submitted later than Feb. 1 but before April 1, 1959, will be scheduled for evaluation at the third meeting of the advisory committee to be held on May 11, 12, 1959.

To quote from a U.S.O.E. bulletin: "Under the provision of Title VII of Public Law 85-864, 85th Congress, grants-in-aid may be made to public or private nonprofit agencies, organizations and individuals for research and experimentation in more effective utilization of television, radio, motion pictures, and related media for educational purposes. Such research and experimentation must be of value to state or local agencies in the operation of public elementary or secondary schools, and to institutions of

higher learning, and may include the development of more effective technics and methods: (1) for utilizing and adopting motion pictures, video tapes, and other audio-visual aids, filmstrips, slides and other visual aids, recordings (including magnetic tapes) and other auditory aids, and radio or television program scripts for such purposes; (2) for training teachers to utilize such media with maximum effectiveness, and (3) for presenting academic subject matter through such media."

How much genuine research and experimentation will result from this program is problematical. The shortness of time allowed for submission of the project proposal may result in a "pie in the sky" attitude on the part of some in submitting a project that lacks genuine substance, yet it might receive a federal grant because it conforms to the general objectives of the program.

Alumni

THESE days the college or university administrator is taking a new look at the alumnus. In previous years, the alumnus was probably given consideration only in proportion to his potential as a donor.

Today it is apparent that the alumnus has a larger function — as a recruiter of future students, as a public relations interpreter for his alma mater, or perhaps as a student again in a series of adult education classes.

When a college administration moves toward meeting the intellectual needs of its alumni, it is more likely to develop a genuine understanding of the proper relationship between institution and alumnus. An alumnus is also more likely to respond generously to his alma mater's need when he sees how the college or university is presently meeting his need in business or industry or general knowledge.

Better interpretive material in the form of booklets, reports and newsletters must be made available to the alumnus. He must see and understand how his college is relating itself to the issues and pressures of society. He must be served by an alumni executive who understands both institution and alumni, and who does not regard an unbeaten football team as the one route to alumni understanding.

The support of alma mater by alumni has not been a shining example of philanthropic support. Although some colleges can report significant percentages of their alumni contributing annually to their support, in many cases such support is rather pitiful. Corporations are understandably reluctant to donate corporate funds to a college if the alumni have not given financial expression to their concern for its future.

Let's Meet the Critics With **FACTS**

RUSSELL I. THACKREY

Executive Secretary-Treasurer

American Association of Land-Grant Colleges and State Universities, Washington, D.C.

MANY eminent figures in American life have never taken a constructive interest in our educational problems, do not bother to inform themselves about them, but have dedicated themselves to fooling the public about them.

Many things are wrong with our educational system at all levels. The pendulum did swing too far away from emphasis on some of the basic studies, and too far away from attention to the problems of the specially gifted as compared to those of the average or mediocre. My purpose is to list some of the things that are being said generally about American education and then to give the facts about them. Mark Twain once said there was no tragedy so horrible as that of a beautiful myth being murdered by an ugly fact. If that is so, we have a lot of material for tragedy. I propose to parade a few of them and take a shot from the hip at each. An Irish strain in my ancestry tells me Mark Twain was wrong; myths have a life of their own which no man can touch. They flourish because people want to believe there is an easy and inexpensive way to solve all our educational problems, if it weren't for the pesky educators. And sometimes they are more nearly right than some of us educators will ever admit!

Myth No. 1. Our elementary and secondary educational system has so degenerated, and our young people have become so soft-headed, that fewer and fewer young people are undertaking careers in science, engineering and mathematics.

Fact. Since 1954 and until the fall of 1958 the percentage of college-entering young men going into engineering (as compared to the total freshman class) has increased at a

From a speech presented at a U. S. Department of Agriculture Graduate School luncheon, 1958.

much faster rate than the increase in the freshman class. Enrollments in engineering now stand at an all-time high, although the numbers of college-age young people are fewer than 20 years ago. The *proportion* of college students taking engineering is higher than at any period except immediately after World War II. We do not *know* that the same situation prevails in other areas of science and mathematics because our government has not considered it important to find out, though a survey is under way. Agricultural enrollments are, of course, about static for the country as a whole, but other factors are at work here.

Myth No. 2. Virtually all our mid-western, western and southern states have laws that require their public universities to admit any graduate of an accredited high school.

Fact. Only four states have such laws. In other states, university boards have followed this as a policy. Such admission practices, however, *do not mean* that a high proportion of unqualified students enter curriculums at public universities for which they are not qualified. Several factors operate against this: (1) There is a high proportion of self-selection. Students who have not done well in high school tend, by and large, not to try to go to college. (2) Testing, counseling and guidance discourage many who make an initial attempt to enter. (3) No public university of which I am aware admits students to curriculums for which they do not have prerequisites, or make them up. Some maintain special divisions that offer special terminal work for those not qualified for admission.

Myth No. 3. Much higher admissions standards would eliminate many students who should not be in college anyway, would save money, and would bar no one who should get a college education.

Fact. This one has elements of truth, but the relative values involved are not usually stated. Existing entrance tests are not sufficiently refined to predict academic success in more than a rough fashion.

A study made at the University of Kansas showed that 20 per cent of the graduating class would have been eliminated as freshmen by a test used for screening at many institutions. These included many students of distinctly superior academic ability. The question is: How does the loss to society of the abilities of these young people compare to the gain in dollars of eliminating the cost of educating the others whom the test would have barred?

Myth No. 4. One-third of our high schools do not offer chemistry, and more than 40 per cent do not offer physics.

Fact. True, but it doesn't mean what most people think it means. More than 95 per cent of *all* high school students are *enrolled* in high schools which *do* teach physics or chemistry.

Myth No. 5. The statement was made in *Life* that only 20 per cent of all U.S. high school students take mathematics beyond a beginning course in algebra.

Fact. A recent Office of Education bulletin says 40 per cent of all high school students take plane geometry, which is offered beyond algebra and is required for college entrance.

Myth No. 6. The number of high schools offering physics, mathematics and chemistry, and the percentage of students enrolling is declining.

Fact. This was true for a while. Since 1954 the number of high schools offering these subjects has increased, and the percentage of students taking them has increased. This trend started a long time *before* Sputnik I was

Our chief problem is not whether John Dewey was right or wrong;

launched, and *before* the great outcry about the deficiencies of our schools got under way.

Myth No. 7. Observations about practices in "our nation's high schools" hold generally true for the country as a whole, though there are some minor variations.

Fact. If the U.S. is divided into regions, the percentage of high school students enrolled in certain mathematics courses in one region is two to three times, and in some cases as high as five times, that in another region. Another example: Ninety per cent of high school students in the South Atlantic region take a course in biology, while only 64.7 per cent of those in the Pacific Coast region take such a course.

Myth No. 8. Most of our scientists originate in small private liberal arts colleges, and are trained at the doctoral level in outstanding private universities.

Fact. Wrong on both counts. The first myth has grown up because of a study of undergraduate origins of American scientists made a few years ago at Wesleyan. The method used was to take a head-count of the graduating classes of certain institutions in a specified year, and then see how many later got doctorates in science. From this a "productivity ratio" was established. And from this "ratio" all sorts of conclusions were reached about effect of size and complexity of institution, character of staff and students, geographical location, presence or absence of fraternities, and so forth on "productivity."

Now it makes no sense to compare the graduates of a complex institution which offers baccalaureate degrees in such widely diverse fields as education, engineering, music, art, agriculture, and business — as well as in arts and sciences — with the graduates of institutions offering only an arts and sciences program, if you are talking in terms of the relative numbers who later go on for science doctorates. It is like taking, say, a bushel of oranges and a bushel of apples on the one hand and two bushels of oranges on the other, and studying them in terms of the effect of different environments on the "productivity" of citrus juice.

There is no question but that certain small private arts colleges are outstandingly high. However, a check on the land-grant colleges and state universities showed that 38 per cent of those receiving science doctorates in a specified period did their *undergraduate* work in these institutions, which enroll only about 25 per cent of all U.S. students.

The second myth — as to where graduates trained at the doctoral level come from — is simply a carryover from the days that were. More than 55 per cent of *all* doctorates are granted by land-grant colleges and state universities, and the percentage of science doctorates is much higher.

Myth No. 9. All Russian children get an elementary-secondary education equivalent to that in the best English public (private) schools. (This statement was made by William Benton on several occasions after his return from Russia.)

Fact. The Russian children who *do* finish the tenth grade get an excellent education in science, mathematics and related fields. But only 12.5 per cent of those who start the Russian school system finish the tenth grade, and many in the rural areas never start at all.

The next item is not in the myth category, but is often misinterpreted. It revolves around the fact that there has been a sharp *percentage* decline in high school students taking physics, mathematics and chemistry since 1900, and until recent years. The point is that while the percentages have declined sharply, the numbers have increased sharply, because of the increasing percentage of the high-school age group in high school. The factor that should cause us worry, however, is that the increase in numbers has not been in proportion to the increase in population.

Myth No. 10. The fact that the Russians were able to launch a satellite ahead of us demonstrates that our science is lagging behind that of the Russians, and that our educational system is therefore in need of a drastic overhauling.

Fact. I have had opportunity to attend a number of meetings also attended by men well qualified to judge

the situation. Whenever the opportunity presented itself, I asked the question: Did the Russians launch a satellite ahead of us because we lacked the scientific know-how to do it, or because we put priority on other things, or failed to concentrate our own abilities and resources? The answer has in each case been that we had the talent and the resources, and that (1) we gave low priority to the launching of a satellite and (2) we deliberately divorced this launching effort from our military programs, so that our people working on the satellite were to a considerable extent duplicating work that had already been done by the military.

The significance of Sputnik was the great progress the Russians have made, not in our lack of progress.

Myth No. 11. The solution to our problem of financing education is to charge the cost to the student, who is the chief beneficiary. If he can't pay it, let him get a loan. This solution is being advocated by *Fortune Magazine*, among others, as a way of financing all our higher education and preserving our excellent private colleges. (Some modify this approach by suggesting scholarships for those who can't pay.)

Fact. Such a solution would be disastrous to most of our private colleges and would in general eliminate our public colleges, as such. More important, it would be disastrous to the future of the United States. Of course education benefits the individual, but if it is not beneficial to society, why do we have presidential commissions on it, national committees on scientists and engineers, and so forth? Its *primary* benefit is to society, and the notion that those who benefit most don't pay their proportionate share of the cost is nonsense. They do pay for it — in taxes and in voluntary gifts, at a time when they are able to pay, and not when they are struggling to establish families.

Many of our private colleges are in serious difficulty now because they don't get sufficient support from corporations, from churches, from individuals. This support would, in my opinion, largely vanish if they started charging the full cost of education. Why should anyone give money to Sears-Roebuck or Safeway?

it is to get enough money to attract and keep good people in education

Think of the size and complexity of a scholarship program that would be required if all our colleges started charging full costs, and private voluntary support and public tax support were withdrawn. *Fortune* thinks scholarships would not be necessary — that loans should be the answer — except for those students who would enter teaching, the ministry, social service, and other "less well paid" professions. Why should *anyone* want to enter the less well paid professions? If society has no responsibility for the individual, does the individual then have a responsibility to society? And I would note that the U.S. college student already pays a higher proportion of the cost of education than in any other major country of the world.

Everything Isn't Rosy

These remarks have been largely devoted to contrasting some facts about our educational system with what some prominent people are saying about it.

The fact that things are much better than these people say they are doesn't mean everything is rosy and we need not worry. The improvement of American education will require all the time and intelligent attention and money we can find to put into it. But it should be done on the basis of facts, not myths, and on the basis of the real accomplishments and potentials of our own system of today, not with nostalgia about the Nineteenth Century or unrealistic comparisons with Europe.

Most of Europe has reserved higher education for a small elite. We have attempted to provide it for all who can profit by it. The fact too often lost sight of is that in providing education for the many, we have also educated an elite fully comparable in numbers and quality to that of the average European country. As Byron Hollinshead, who has come back recently after several years in Europe, has pointed out: The number of American college and university students in such honor societies as Phi Beta Kappa, Phi Kappa Phi, Sigma Xi, and others, is almost as great as the entire university student body of Europe. In addition, we have large numbers of college graduates of superior, but less than

top, ability who make great contributions to our society, an accomplishment not matched by any major European country.

What are the directions in which American education, and specifically American higher education, can and must be improved? I will list a few: We need increasing emphasis on *quality* — in our faculties, in the performance of our students, in facilities. I do not mean the approach to quality that involves simply excluding all but our ablest students from education beyond high school. I mean the emphasis which so far as feasible matches the abilities of the student with his program, which pays special attention to the superior as well as the average student, and which demands the best performance of each.

Every group that has studied the subject carefully says that our first priority need is for improvement in faculty salaries, and our second priority need is for improvement in facilities and equipment. Contrast this with the great emphasis in Congress (and by the most vocal critics of education) on scholarship programs to get more students into colleges which are already inadequately financed to take care of those we have.

We need to quit quarreling about the dangers of federal control and ways in which the federal government should not be involved in education and put our emphasis on ways in which the federal government can and should help education. One of the simplest ways would be for the federal government to start paying a reasonable share of the cost of some of the services and facilities for which it depends on higher education; for example, federal medical and health research programs, agricultural research, R.O.T.C. facilities, housing.

Where We Have Advantage

We should be paying a great deal more attention than we are, nationally, to emphasis on education and research in the social sciences, the humanities, and in the biological sciences. These are all areas in which we have a clear advantage over the Russians. We are far ahead of them. Are we going to sacrifice this advantage because the

Russians have shown that they are catching up with us in the physical sciences?

Mr. Krushchev has given us abundant notice, for example, that he knows the Russians are far behind in biology and agriculture and that he intends to catch up with and pass us. Do we need to have him demonstrate it before we pay attention? Are we in danger of forgetting, in our great and justifiable concern for the physical sciences and engineering, that the difference between democracy and most forms of totalitarianism is in democracy's concern for the individual and his full cultural, social and spiritual development?

The searching examination of our educational system that followed Sputnik is in many ways a fine thing for education. Even the most extreme and absurd criticisms of our educational system may be healthy in that they have forced our educational people to think about what they are doing and either justify it or change it. It is healthy to have the American people talking about education, as well as of new turnpikes, new post offices, and new mental hospitals.

There is no formula to solve our educational problems. The problem of greatest importance at all levels today is not whether John Dewey was right or wrong or misunderstood. Nor is it the percentage of high school students who took chemistry in 1900 as compared with that today. It is that of getting enough money to attract and keep good people in education at all levels.

The second priority problem is that of providing facilities for teachers and students to work in.

I respect brains sufficiently to think that if we make education sufficiently attractive to enough intelligent, dedicated people they will figure out ways to solve a lot of our other problems. Such people, and there are a great many in education today, will require quality performance. They will inspire more young people to go into occupations that involve stern intellectual discipline.

Whatever we do, I suggest we do it in terms of facts, not myths, however attractive the latter may be. ■

Instructional Cost Studies in Perspective

Generalizations that have emerged from studies made
at the University of Michigan in the last 25 years

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COST studies are important tools of management in all organized business activities. Colleges and universities have, for many years, analyzed their costs with a view toward maintaining high quality at minimum cost.

Higher education is being "surveyed" more today by outside agents than at any time in the past. This is good. We in higher education should accept cost studies and surveys as opportunities to describe to our supporting clientele the types of service that are rendered, including those services that are above and beyond instruction.

The large complex university has an opportunity through these surveys to describe the differences in the job assignment which it has received from the state in comparison with the liberal arts college, the junior college, the teachers college, the church related college, or the private institution. As in business and industry, costs vary with the nature of work performed.

Surveys have occasionally failed to achieve their objectives because of over-reliance on statistical summaries, totals and averages, lacking in comparability. One state was recently surveyed by a person who, because of pressure of time and other jobs and commitments, was able to spend less than one eight-hour day on the campus of the largest institution.

We have all heard that the survey report about a given state can be written before the survey is made. There does seem to be a remarkable similarity in the patterns used in certain reports.

In spite of these criticisms, this paper is written with the belief that cost studies are valuable tools for management, which, if properly conceived and used, will be helpful in many ways.

Since about 80 per cent of the ex-

penditures of many institutions goes into salaries and wages, and since most of the salary and wage money is spent on instructional and related salaries, major attention will be given in this discussion to instructional cost studies.

The technics underlying instructional cost studies are simple, in theory at least. One can isolate the two major factors of importance: (1) the costs of instruction, and (2) the product or number of teaching units produced for the costs involved. The total costs may be divided by the number of teaching units produced, to yield the average cost per unit. This average is sheer fiction. One may average the cost of teaching one hour in freshman English with the cost of teaching one hour in an advanced subject in the medical school. To use such an average as the basis for administrative decisions would be highly questionable.

Colleges and universities should be supported on the basis of intimate knowledge of the instructional problems of each department. Support provided on the basis of averages inevitably provides too much support for some departments and too little for others.

Four Primary Factors

There are four primary factors or bases of instructional cost: (1) faculty salaries, both direct and deferred in annuities and retirement programs; (2) the number of hours a week taught by the members of the faculty; (3) the number of students enrolled in the classes taught by faculty members; (4) costs of maintaining the plant, library, administrative and other supporting services.

Some of the more important generalizations that have emerged from cost studies at the University of Michigan in the last 25 years are listed here.

1. Instructional costs increase with the advance in the class level of the student.

If the average cost of one student contact hour for freshmen-sophomores is converted to an index of \$1, the average cost of one student contact hour for juniors-seniors will be \$2, and the average cost of one student contact hour for students in the graduate school, and the graduate-professional schools, will be \$4.

These are average figures and show relationships of costs by level. Some freshman-sophomore courses are taught at costs of \$10 per hour; others cost much more. Some departments may offer the finest quality of graduate work at actually lower unit costs than another department can offer beginning courses. These variations usually are understandable when one searches for the underlying educational reasons.

2. The idea that instructional costs increase with the advance in class level or degree of specialization of the student has been an accepted principle of administration in higher education for many years.

One of the early studies conducted by the U.S. Office of Education in 1937 indicated variations in cost with the advanced level of the student, with the more complex institutions having cost ratios of 1, 2 and 3, for lower college, upper division, and graduate work.

California has recently completed a "Restudy of the Needs of California in Higher Education." This study used both student teaching hours and semester hours as the base.

The direct instructional costs for one semester credit hour in California are reported in the table on page 29.

The entire instructional budgets were not included in these cost computations. Allocated costs for faculty service in research, public and professional service, departmental and

Direct Instructional Costs for One Semester Hour in California

Inst.	Fresh.-Sophs.	Jrs.-Srs.	Grad. Grad.-Prof.	Ratio
A	\$ 9.03	\$13.64	\$53.66	1:1.6:6
B	9.04	18.11	53.32	1:2:6
C	11.34	23.13	42.56	1:2:4

institutional administration were eliminated from the cost base.

The director of the legislative study of higher education in Michigan, John Dale Russell, chancellor of the State System of Higher Education in New Mexico, reports that for all six institutions in New Mexico the costs for one semester hour are:

Freshmen-sophomores	\$ 9.10
Juniors-seniors	17.22
Graduates	39.33

3. Any curriculum with a small enrollment will have high unit costs.

Educational policy will require a certain minimum number of different courses to provide a program that covers the field and is complete. If the enrollment is not large enough to fill each class to the "average size," a larger number of students could be taught for essentially the same instructional cost. In medicine all section sizes are as large as efficient instruction will permit. Or, stated another way, medicine is expensive in spite of its crowded enrollment, and other curriculums may be expensive because of smaller enrollment.

One should not conclude, however, that the high cost and low enrollment courses should automatically be eliminated. A university has a social obligation to continue studies in certain areas even though costs are substantial.

4. Instructional costs must be analyzed for each college or university.

While there is a general agreement that instructional costs advance with the increase in class level or degree of specialization of the student, it would be unwise to assume that the 1:2:4 cost ratio or the dollar costs reported at the University of Michigan would apply to any other institution.

5. Actual instructional expenditures are of more importance than the cost ratio.

The instructional costs in another institution might be within a few

dollars of those reported at Michigan, and yet the ratio might be 1:2:6.

6. The number of students in the lower division, upper division, graduate-professional programs is as important as the costs of instruction at each level.

Two institutions with an enrollment of 23,000 students may have the same unit costs for lower divisions, upper division, and graduate work. The students may be divided in a different manner between the three levels as shown in the following illustration.

	Univ. A	Univ. B
Fresh.-sophs.	12,000	6,500
Juniors-seniors	8,000	6,500
Grads.-grad. prof.	3,000	10,000

Clearly University B must have larger funds for carrying on its instructional program.

7. Cost data are most defensible when based upon the official records of the university.

All sums budgeted in the teaching units should be included. Faculty instructional records should be used to ascertain the number of teaching hours of each teacher devoted to freshmen-sophomores, juniors-seniors, and graduate or graduate-professional students. Subjective judgments for the purpose of allocating instructors' salaries, or time, to the faculty functions of teaching, research and public service are of questionable value. When such subjective judgments are expressed, the ratio of teaching costs between freshman and graduate level courses runs as high as 1:56. It is difficult to obtain agreement on such estimates, however, because of the acceptability to us of our subjectivity in judgments and lack of acceptability to us of the other institution's subjectivity in judgment in the same area.

8. Cost studies to be meaningful should describe costs at each student level—freshman-sophomore, junior-senior,

graduate or graduate-professional—for each department of each school and college.

Further breakdowns must be available according to the educational objective of the student. The medical school teaches medical students, but it also offers paraprofessional training to therapists, anesthetists, nurses, physical education majors, and others. The costs for offering such instruction should be analyzed separately from the costs for offering courses leading to the M.D.—or we again have meaningless averages.

9. Cost studies are only one means designed to help management understand the nature of the processes involved.

Cost studies are not an end in themselves. Since they are not self-executing they are useful only in skilled hands.

10. Low instructional costs are not necessarily correlated with high quality or with instructional efficiency.

It may be necessary to increase instructional costs in order to achieve desired educational objectives. Freshman English may be taught at lower unit costs if junior instructors or teaching fellows provide all instruction. If several senior professors are asked to teach sections of this freshman course, the average unit cost will rise. Those in charge of the course must then decide if the increase costs are justified in the light of the influence of senior professors upon a freshman course.

Low-cost departments should receive as much attention as high-cost areas. Perhaps the costs are too low, and adequate instructional opportunities are not being afforded the students.

11. Institutions, departments and even courses vary.

When comparisons are made, they must be based upon comparable units—not between noncomparable units using similar nomenclature.

The terms "average cost per student" or "average cost per instructional hour" are meaningless. There is no standardization of students, teachers or volume of work required to produce one teaching or credit hour. The freshman liberal arts student is different from the Ph.D. or M.D. candidate; so are the teachers in these various areas, the salaries paid, the teaching methods, and other factors that affect costs. ■

Punched Cards Improve Clinical Control Four Ways;



Eugene W. Bauer supervised the application of punch card equipment at the University of Oregon Dental School.



Control of clinical activities stems from cards punched to cover patient appointments, treatments and cash receipts.

BETTER control, both from the patients' and institutional points of view, has been achieved at 40 per cent lower clerical costs by using machine accounting to keep clinical records at the University of Oregon Dental School in Portland.

Applications worked out to control activities in the clinics of the dental school have great potential for eventual application throughout the clinical activities of the University of Oregon Medical School (on whose campus the dental school is located) or, for that matter, in similar institutions anywhere.

Under our setup, the clinical and teaching facilities of both the medical and dental schools are coordinated to a certain extent administratively as well as from the standpoint of public service. Both the teaching hospitals and clinics and the dental school's clinics are located on a single site, often referred to in our area as the Portland Medical-Dental Center.

Administratively, there have been some important advantages in the arrangement under which the medical and dental facilities are served by a single agency, a branch of the controller's office of the State System of High-

er Education. Under this plan, we have been able to build machine accounting facilities that are more nearly complete today than would have been possible if we were serving the medical center alone. Tying in accounting for the three hospitals of the medical school, as well as the dental school, with the keeping of academic and financial records for all the state college facilities in our area, has made it possible to develop a central machine accounting service facility that is particularly well suited to the needs of medical and dental clinics.

Because ours is a teaching as well as a public service institution, we have set up a four-part responsibility for our machine accounting program:

1. *Complete, day-and-hour scheduling of patient appointments and workloading for our dental staff* (which can be extended to medical clinics). Punched card methods are both more considerate to the public and more accurate than any other system we have found for measuring time utilization and appointment fulfillment of student personnel. This is particularly important in the training and grading of students.

Equally important, however, is the

fact that patients are now treated more considerately. It is all too easy for a public clinic to fall into the habit of asking all or most of the patients who have appointments on a given day to show up at 9 a.m. and wait until the physicians or dentists can see them. This wastes the time of the patients and clutters up the institution's waiting rooms. Punched card methods make it possible accurately to schedule appointments for large numbers of patients. We also have found this practice gives student dentists experience in the handling and appointment scheduling for patients which is on a par with private practice.

2. *Patient progress reports.* Again, this is a phase of clinical management in which paper work volume is so great that accurate, up-to-date record keeping is difficult by manual methods. With our new equipment, we are always up to date on the progress in each patient's course of treatment. Automatically, the punched card reports give our staff directors a running visual comparison between patient progress and diagnosis. This degree of control was just not practical previously in such a large-scale clinical setup because the volume of record shuffling

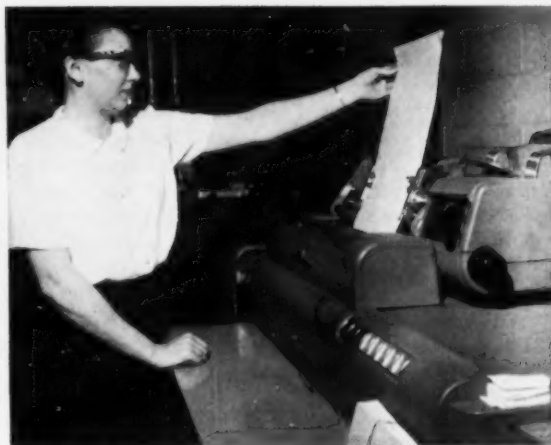
Cut Clerical Costs 40 per Cent for Oregon Clinic

EUGENE W. BAUER

Management Analyst, Oregon State System of Higher Education



Left: Machine converts cards mark-sensed to show treatments into punched cards.



Right: Machine lists patient progress reports, appointments and cash balances.

Below: Many public clinics fall into the habit of asking all or most of the patients who have appointments on a given day to show up at 9 a.m., thereby wasting the patients' time and cluttering up the waiting room.

required was too large to make accurate controls possible.

3. *Student progress.* The same cards used to record patient progress are sorted at high speeds to give our staff regular, periodic pictures of what each student has done, how well he has done it, and how completely performance matches academic requirements.

4. *Complete financial control over all clinical activities.* Office machine operating reports actually balance the cashier's score on the usage of drugs and precious metals — actually all treatments rendered to the patient.

The record keeping sequence that gives us these tight controls begins with the first visit to our clinic by each patient. At this time, basic registration information is recorded on a punched card. Data entered include full name and address, the number of the chart created for the patient, name and telephone number of the referring physician, and the name of the student dentist or staff member to whom the patient is referred for treatment.

In our office machines department, this information is translated into punched holes in a master deck of cards. The original registration infor-



mation card, then, is returned to the main desk in the clinic for general information.

At the time of admission, the patient is assigned to a specific clinic. From then on, the patient's name and progress is listed in regular reports put out for this clinic. A complete listing of all operations or services performed for the patient is accumulated right up to the time of discharge. Any lack of activity, therefore, brings the individual case immediately to the attention of instructors or supervisors.

In certain types of cases, a full course of treatment can be prescribed in advance. In such cases, progress reports list both the prescribed treatments and those actually performed.

Once a patient is assigned to a student, it becomes his responsibility to pursue all necessary treatments on his own, making appointments that suit his schedule and those of his patients. For each appointment made, the student fills out a two-part appointment slip, one copy of which goes to the accounting machine department.

It should be stressed that this plan allows full flexibility. At the time of his first interview with the patient, for example, the student can set up appointments for a full course of treatment, ranging through a four-month or six-month period if necessary. Each student keeps his own memo record of appointments, of course, but the filling out of an appointment slip assures student, patient and administration that appointment records will be monitored with guaranteed accuracy by our tabulating machines.

Our card punch operator, then, prepares a separate card covering each appointment. These are set up in pending files according to date. At 8 a.m. each morning the cards for the day are pulled from this file and run through a punch card accounting machine to give detailed appointment lists. One complete list is made for the main desk, while separate lists are put out for each clinic that wishes them.

These lists are tabulated by student and broken down through the day by working hours. In this way, of course, they also provide at-a-glance measures of a student's ability to arrange his working day efficiently.

While these appointment procedures provide flexibility and control for advance scheduling, they also allow for inevitable, last-minute chang-

es. Staff members and students can transmit or telephone appointment data to the processing department right up until 8 a.m. and have them listed and distributed in the morning.

New cards, then, are created to cover information on each visit of every patient to any of our clinics. Since these cards include full, coded treatment descriptions, there are slightly different cards for each clinic. However, the basic plan for using these cards is pretty much the same. Supplies of blank cards are kept in the clinic and provided for the use of staff members or students. Colored stripes printed across the tops of the cards immediately identify the departments in which they are to be used.

The front faces of most of the cards are identical. The backs, where treatment data are recorded, are adapted for the needs of the individual clinic. Only a minimum of manual entries are required from the person rendering treatment — date, patient name, chart number, student number, and name. Information on treatments rendered can be entered, for the most part, with penciled strokes in designated columns on the back of the card. These entries, made with electrographic pencils, fit in with the mark-sensing system, *i.e.* pencil strokes entered in the clinics are automatically transposed to punched codes on our machines.

Instructor Inspects Work

With mark-sensing entries, the student lists all treatments applied and drugs or precious metals utilized. As each operation is completed, the work is inspected by an instructor, who, again with mark-sensing, enters the number of points to be credited to the student's records, a grade for the work, and his own number.

As an operation is started, the charges to the patient are entered on a stub attached to the punched card. On receipt of payment, the card, together with accompanying money, is transmitted to the central cashier via pneumatic tube. The cashier detaches the stub, validates the card on her cash register, and returns it to the clinic with any necessary change via pneumatic tube. The tight controls made possible by the combination of punched cards and pneumatic tubes, it is worth noting, has made it possible in the dental school for us to operate all our clinics with a single cashier.

Formerly, three separate cashier stations were required.

The student, then, is permitted to retain the treatment card until the operation has been completed. The punched card is then forwarded to the processing department. We get fool-proof control over entry of these data by (1) checking off treatment cards against cards created from the corresponding cash receipt stubs, and (2) from the fact that the work is not credited to the student's performance records until he turns in the cards.

Cash handled in our clinics is balanced daily from cards punched to correspond with each receipt stub sent to the office machines department by our cashier. The punched cards are run through the accounting machine to produce a fully listed tape, which is balanced against the cash register totals.

The operations described here have already proved themselves in the operation of our dental school clinics, functioning under a program in which a total of approximately 150 junior and senior dental students are each seeing a full complement of patients.

From the cards created in our day-to-day operations, our office machines department produces, every two weeks, a full progress report for each student. These are detailed to list each piece of work done and to total the number of units of credit. The same report lists the requirements for each student under each type of work.

Every week, for each clinic, we produce a report listing work done on each patient. These listings are segregated according to each student dentist. Then, at the end of each month, each instructor gets a full printed list of all work done on every patient by each student under his supervision.

For general control and as a valuable research tool, we produce a monthly report of all surgery in our dental clinics.

All cases, of course, are coded according to standard nomenclature code so that any research projects to be undertaken in the future will be greatly aided by our ability to draw data from cards at machine speeds.

We are deriving benefits from our operating records today that were never possible under manual record keeping systems, and these improvements are being achieved with a saving in clerical time of 40 per cent. ■

WHAT COUNTS IN A JOB?

Listed below are 10 primary job conditions which are important to any type of work. After thinking about these 10 factors in your own job, how would you rate them in the order of their importance to you? After you have made your own ratings by putting your selected number, from 1 to 10, after each condition, drop this card in your university mail.

Job Condition	Rating
Appreciation for good work	
Feeling "in" on things	
Help with personal problems	
Job security	
Good wages	
"Work that keeps you interested"	
Possibilities for promotion	
Personal loyalty to the workers	
Good working conditions	
Tactful discipline	

Please list your Job Classification

What Do Employees Want in Their Jobs?

KATHRYN G. HANSEN

Executive Secretary

University Civil Service System of Illinois, Urbana

HAVE you ever been concerned with the job factors that college and university employees consider important? Or have you assumed that they were those that were prevalent for industry? Or that they were the same as those of the academic staff?

Last year *Newsweek* published a list of job conditions that were rated by workers and by foremen. This listing included factors that were as appropriate for nonacademic positions (or possibly, for academic positions) in colleges and universities as for positions in industry.

The University Civil Service System of Illinois serves the nonacademic staff (approximately 7000 positions) at the nine campuses of the state supported institutions of higher learning in Illinois. These employees receive a publication, *Campus Pathways*, five times each year, through which an attempt is made to keep them informed regarding their responsibilities, rights and privileges as university employees, and regarding their part in the teaching, research and service functions of Illinois state universities. In the July 1958 issue the card illustrated above was enclosed:

Considering the fact that this questionnaire card reached the staff during the peak vacation period, a return of one out of every 9.76 employees (10.25 per cent) would seem to provide a fairly representative sample, as the returns came from all occupational areas (based on the "Dictionary of

Occupational Titles"), and from each of the campuses served.

Campus	Ratio of Returns to Total Employees	Per Cent Nonacademic Employees Submitting Returns
1	1:10.48	9.54
2	1:20.91	4.78
3	1:9.44	10.60
4	1:7.50	13.33
5	1:5.56	17.99
6	1:6.21	16.12
7	1:1.45	68.75
8	1:3.33	30.00
9	1:8.75	11.43
All campuses	1:9.76	10.25

"Work that keeps you interested" was rated as most important when data from all occupational areas and all campuses were included; it came out in the first position for Professional, Managerial, and Clerical employees; it was first when data were grouped by supervisory and nonsupervisory staff. (It was rated in sixth place by the foremen in the Labor Relations Institute study.) "Good wages," listed of first importance by Semiprofessional, Stores, Agricultural, Service, and Trades employees, was of second importance to Professional, Managerial, and Clerical employees. When data were grouped by supervisory and nonsupervisory staff, "good wages" appeared in second place in both groupings.

While "job security" was second in importance to Stores and Service employees, it never rated a first-impor-

tant listing; it was rated third by Professional and Clerical employees, fourth by Managerial employees, and fifth by Semiprofessional and Agricultural employees.

"Appreciation for good work," rating fourth in importance in almost all of the occupational areas, provides the interesting suggestion for supervisors that, regardless of educational background and experience, appreciation of good work is an important factor in job satisfaction.

Interesting also is the rating of "feeling in on things," which fell into seventh and eighth positions in all groupings. While undoubtedly an important factor in job satisfaction, System employees may have given it this comparatively low rating because they do feel that they are in on things, as emphasis is being placed on a communications program.

Does Size Make Difference?

Does size of institution make any difference in how employees feel about their jobs? The University Civil Service System, during 1957-58, served campuses ranging in size from 112 nonacademic positions to 3174 nonacademic positions. While differences in ratings were not significant, it appears that campuses with fewer than a thousand positions differ less with one another in their ratings than they do with campuses with more than a thousand positions.

(Continued on Page 34)

RATINGS BY SUPERVISORY AND NONSUPERVISORY NONACADEMIC STAFF

Job Condition	Rating by Supervisory Nonacademic Staff*	Rating by Nonsupervisory Nonacademic Staff**
"Work that keeps you interested"	1	1
Good wages	2	2
Job security	4	3
Appreciation for good work	3	4
Good working conditions	6	5
Possibilities for promotion	5	6
Feeling "in" on things	7	7
Personal loyalty to workers	8	8
Tactful discipline	9	9
Help with personal problems	10	10

*Ratio of returns to total supervisory employees — 1:9.15.

Percentage of returns from total supervisory nonacademic group — 10.93 per cent.

**Ratio of returns to total nonsupervisory employees — 1:9.14.

Percentage of returns from total nonsupervisory nonacademic group — 10.95 per cent.

RATINGS BY SIZE OF CAMPUS

Job Condition	All Occu- pational Areas and All Campuses	More than 1000 Positions	Between 500-1000 Positions	Fewer than 500 Positions
"Work that keeps you interested"	1	2	1	1
Good wages	2	1	2	2
Job security	3	3	3	3
Appreciation for good work	4	4	5	4
Working conditions	5	6	4	5
Possibilities for promotion	6	5	6	6
Feeling "in" on things	7	7	8	8
Personal loyalty to the workers	8	8	7	7
Tactful discipline	9	9	9	9
Help with personal problems	10	10	10	10

In previous attitude surveys at the University of Illinois, data indicated that there was a feeling of lack of opportunity for promotion. However, this factor does not seem to be of significant importance, as it is rated in sixth place, for the most part, in this survey. This may be due to the fact that since 1952 the University Civil Service System has been in operation, and employees now feel that they do have opportunities for promotion, based upon their own efforts through competitive examinations and their selection from registers.

According to the listings prepared by the New York Labor Relations Institute, the three top factors in job conditions, as listed by the worker, were: (1) appreciation for good work; (2) feeling "in" on things, and (3) help with personal problems.

The foremen gave as the three top factors: (1) good wages, (2) job security, and (3) possibilities for promotion.

Comparing these ratings with non-supervisory and supervisory groups in

Illinois state universities, the *nonsupervisory* staff rated the job factors as follows: (1) work that keeps you interested; (2) good wages, and (3) job security.

The *supervisory* staff gave the three top listings to: (1) work that keeps you interested; (2) good wages, and (3) appreciation for good work.

Some Factors Reversed

While the Labor Institute study showed considerable variation in the ratings of workers and foremen (no job condition being given the same rating by both workers and foremen), the nonsupervisory and supervisory employees of the University Civil Service System rated the factors in the same order, except "job security" and "appreciation for good work," which were reversed in positions three and four, and "good working conditions" and "possibilities for promotion," which were reversed in positions five and six.

The value of such a study, provided returns represent an adequate sample,

lies in the indications to employers of factors considered important by employees, as of the date the questionnaire is completed, as well as a reflection of those job factors of lesser importance as of the time of the study. "Help with personal problems" and "tactful discipline" appear to be of least importance to all System employees, regardless of grouping. Whether this is because of excellent supervision or other reasons, this factor is of importance only as an indication to employers that attention should be placed on other job satisfactions as of this time. It would appear that supervisors should give special attention to making jobs interesting and challenging, to meeting prevailing wage patterns, and to emphasizing job security under a civil service program, in order to reduce turnover.

On the other hand, two campuses of the nine indicated "good working conditions" of fourth importance, while the other seven rated it of fifth and sixth importance. It would do no harm for these two campuses to check their working condition standards to ascertain if they meet those maintained by the campuses where this factor does not rate as high a listing.

By sorting data according to occupational areas or by employing departments, the results may be studied according to well defined employee groupings. Such a study may point up problem areas, even down to specific university departments.

Included in the returns were a few responses from academic staff members who acquired the questionnaire cards in university offices. While in no way a representative sample, an assistant dean felt the top three factors of employment to be "work that keeps you interested," "possibilities of promotion," and "personal loyalty to the workers." A university instructor indicated that "appreciation of good work," "work that keeps you interested," and "feeling in on things" merited a 1-2-3 rating, respectively. A university librarian indicated "work that keeps you interested" as of No. 1 importance, followed by "possibilities for promotion" and "job security." And a professor listed "good wages" as his No. 1 concern, "good working conditions" as No. 2, and "appreciation for good work" as No. 3.

A study of academic staff thinking on these same job satisfaction points should prove most interesting. ■

FOR years, members of the teaching profession have been attempting to convince the Commissioner of Internal Revenue and the courts that the costs of their continuing education, necessary to keep abreast of the growth of knowledge disclosed by research, should be considered as a legitimate expense of their profession, deductible from gross income for tax purposes, on exactly the same basis that lawyers and physicians are permitted to deduct their professional expenses.

The commissioner had issued the following regulation¹ in 1921:

"The expenses incurred by school teachers in attending summer school are in the nature of personal expenses incurred in advancing their education and are not deductible in computing net income."

The justification for this discrimination against members of the teaching profession was said to be that only those self-employed were permitted to deduct the costs of conducting their business or profession. Since teachers are employees and not self-employed, they cannot have or incur professional expenses. This reasoning was not always sufficient to convince the courts, as illustrated by the Hill case, decided in 1950.²

Claims Deduction

In 1945, a Virginia school teacher was required to obtain additional college credit in order to renew her teaching certificate. She elected to attend the Columbia University summer school and, when preparing her tax return, she deducted the cost of attending the session. The deduction was disallowed and the commissioner's ruling was sustained by the federal tax court.

A federal circuit court of appeals reversed the tax court decision on the grounds that such expenses were not personal in nature, but were necessary in carrying on her profession. The judge pointed out that, in other tax cases, motion picture actors had been permitted to deduct the cost of maintaining their physical fitness and opera singers were permitted to deduct sums paid to voice coaches. The following is an excerpt from his opinion:

"This taxpayer went to Columbia prompted by the necessity of renewing

A TAX VICTORY FOR EDUCATORS

T. E. BLACKWELL

Educational Management Consultant, Washington University, St. Louis

her certificate as a prerequisite to continuing her work as a teacher . . . The commissioner has specifically ruled . . . that the initiation fee required to be paid to a labor union in order to obtain employment . . . may be deducted from gross income . . . How much stronger in favor of deductibility and more persuasive are the facts in the case of this taxpayer."

Although this decision made it impossible for the Commissioner of Internal Revenue to collect the specific tax involved in the case, it did not establish a precedent which he was compelled to respect and to follow in the future. The commissioner and his staff are not bound by precedents established by the lower federal courts. They are required to respect and to follow only those established by the Supreme Court of the United States and the statutes enacted by Congress. Since the commissioner did not acquiesce in the Hill decision, the Internal Revenue Service continued to enforce the 1921 regulation, as illustrated by the Marlor case.³

An instructor, employed by Queens University on a temporary basis for one year, was informed by his dean that substantial progress toward the attainment of the doctoral degree was a prerequisite for continued employment and promotion. The Internal Revenue Service refused to permit the deduction of the cost of his graduate studies as a professional expense. This ruling was sustained by the tax court, with three judges dissenting. The court of appeals reversed the decision of the tax court in January 1958.

By this time members of Congress had begun to take an active interest in the problem. Stimulated by letters and the testimony of members of the teaching profession and by magazine articles stressing the need to give all possible encouragement to those desiring to increase their efficiency as teachers, more than 60 senators and congressmen introduced bills during the two sessions of the 85th Congress designed to grant more equitable tax treatment for teachers. The National Education Association took an active part in advocating the passage of these bills.

New Regulation

The Commissioner of Internal Revenue, apparently convinced that it would be better to act rather than to have his hand forced by Congress, authorized the publication, on April 5, 1958, of a new regulation⁴ which, in effect, abrogates the 1921 ruling and accepts the decision of the federal court of appeals in the Marlor case. It does not permit the deduction of the costs of educational work undertaken to qualify for admission to a profession, but only those incurred after one has begun his professional career and for the purpose of maintaining or increasing his professional competency.

The commissioner, not content with mere surrender, went further and made the new regulations retroactive. By filing amended tax returns within the period specified, taxpayers are permitted to claim deductions for educational expenses incurred during the years 1954, 1955 and 1956. ■

¹O.D. 892; 4 C.B. 209 (1921).

²Hill v. Commissioner, 181 F. 2d, 906 (1950).

³Marlor v. Commissioner, 27 T.C. 624 (1956), 251 F. 2d, 615 (1958).

⁴Internal Revenue Service Regulation, Par. 1, 162-5; T.D. 6291.



Frank Burge (seated) discusses color coordination of a new vending unit with the university's manager of concessions and the equipment designer.

VENDING

Answer to Round-the-Clock Food Service

FRANK R. BURGE

Director, Student Union
University of Kansas, Lawrence

MOST colleges and universities are having growing pains related to their obligation to provide food and refreshment service for students seven days and nights each week. On their campuses these institutions have some capable, talented and trained food managers and supervisors but, in comparison to the rapidly increasing number of students, they are having difficulty attracting trained persons as supervisors.

This condition has every promise of becoming more acute in the next five years. If we add to this fact the ever increasing unit cost of developing a production and service area and the shorter work week for skilled personnel, it becomes obvious that we must look to vending to achieve the goal of serving high quality food products in every corner of our campus on a round-the-clock basis.

One of the greatest problems in college food service today is between-meal service. Somehow, three meals a day do not seem adequate for the average college student. The snack represents an important part of his total food intake. Today's student eats when he is out on a date, while he studies, while he relaxes with friends, at sports events, between classes, and at after-hours meetings.

This day and night eating calls for easy availability of food. If it is not easily available, the student will sprint across campus to get it before he starts his next class or before he begins an

assigned task. The refreshment break is traditional in America, and the college campus is no exception. As a matter of fact, college people need extra nourishment at irregular hours of the day and night for the physical and mental demands of their busy lives.

For these reasons, we have begun an expanded food vending program at the University of Kansas. It is not replacing our cafeterias and snackbars, but it is providing the means for these basic food operations to extend their services to meet the needs of today's growing campus population. Enrollment at K.U. is 9400 students. By 1970 we expect from 15,000 to 17,000 students. We are planning ahead so that we will be able to take care of these additional young people.

Recently a "campus caravan" automatic refreshment unit was installed as permanent equipment in a dormitory housing 200 men. Its menu includes milk, ice cream, fruit and a soft drink. This is the first of six automatic installations to be placed in residence halls. A completely automatic food facility will go into a first floor area of a new school of business building now being completed.

Vending has been in operation on the K.U. campus since 1951, when veterans came back from World War II expecting and demanding soft drink machines. Now our students have come to expect many types of vending machines for their convenience.

At present, we have approximately

100 vending machines selling soft drinks, candy, cigarets, milk, pastry, fruit and ice cream. By 1965, we expect to have at least 250 machines on campus, representing a 150 per cent increase.

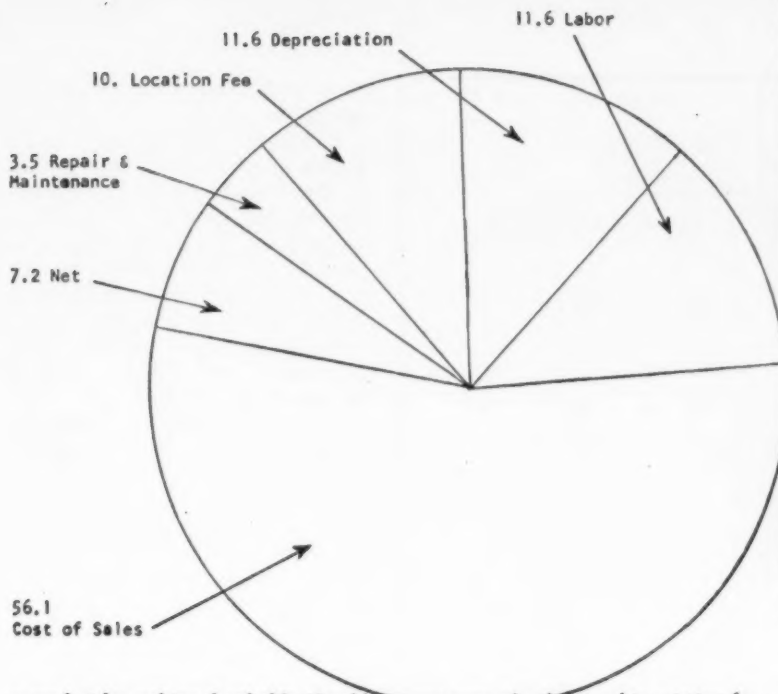
Our central food operation is housed in the Kansas Union. Its kitchens provide food for the Union cafeteria (1500 meals a day), the Hawk's Nest, a student restaurant (3000 to 4000 transactions a day), and for our vending operation.

Our policy has been and will continue to be one of developing and extending a department of concessions to handle all such sales, including those at athletic events. Outright purchase is made of merchandising machines and equipment, and ownership rests with the Kansas Union.

Our original installation cost approximately \$3460. However, optional plans for leasing or deferred payments are available from manufacturers or local distributors, depending on the local situation.

Solves Snack Problem

Kevin Remick, manager of K.U. concessions and all vending operations, has approved plans calling for installation of vending facilities in all new residence halls. Three dormitories that will house 1200 students are now under construction. A new dormitory for 440 girls has a complete bank of venders on the cafeteria level. In one of the new residence halls for girls is



a sandwich machine that holds 42 cold items and 42 hot items. Daily sales over a 7 day period average \$16.85.

The "campus caravan" in the men's hall is the first equipment of its kind designed exclusively for college installation. It was installed last September on a lower floor lounge area of the Carruth and O'Leary dormitory. It consists of a handsome cabinet with specially designed front panels featuring bold use of color and imaginative art work suggesting the various products within the machines. A decorative panel above the product signs uses liberal arts activities as its theme. Each machine unit offers push-button selection of a number of items. Lounge chairs and divans, tables and straight chairs for games or studying, a television set, and several ping-pong tables are located near the vending equipment.

The automatic facility is "open" around the clock. Men students at the dormitory have a variety of refreshment items instantly available, whether they are studying late or entertaining their dates at an informal dance session. This concept of any-hour food service is important. It is the obligation of the college to provide snacks when and where they are wanted.

By 1970, there will be around six million young people enrolled in colleges throughout the country. In order to cope with larger enrollments, the college food manager must devise

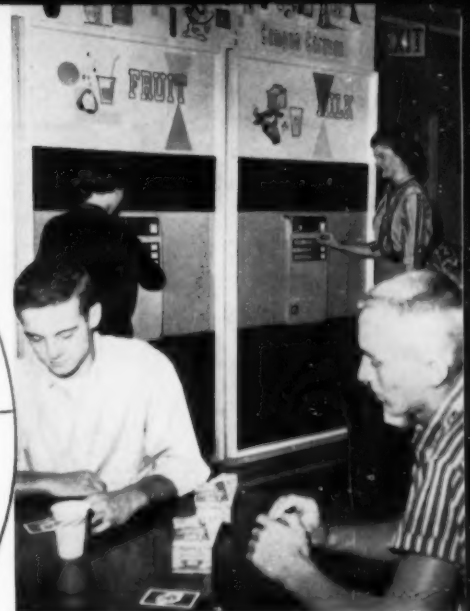
some way of enlarging his existing facilities, often without a correspondingly enlarged budget.

There are a number of things he can do. He can ask his people to do more work. He can recruit new people for his operation, often a difficult or expensive method. In order to get adequate numbers of helpers, he can hire substandard labor. Of course, when he does this, he is likely to get sloppy preparation, poor products, and bad promotion and advertising.

The college food manager can raise prices. But there is a limit that is quickly reached in the matter of price. Students cannot afford to pay excessively high prices for food.

In extending a central food operation over a wider area, vending has three outstanding features: (1) It requires a minimum of extra help; (2) it gives precise quantity control, and (3) it assures a quality food operation because it permits mass production of house specialties under the careful supervision of trained and competent personnel.

In many colleges, the mass feeding principle bogs down first on the non-scheduled food level because of indigenous personnel problems. Customers do not come in for food at regular or even at predictable hours. When they do come, often there is not enough help. When they stay away, help stands idle and wages eat up the slim gross margin. In some instances, labor costs plus fringe benefits are approach-



A variety of snacks is available at drop of coin in automatic machines.

ing 50 per cent of the sales dollar, which makes extended hours of operation virtually impossible. When this happens, the student may receive less food in proportion to the amount spent than we would wish.

Vending Staff Small

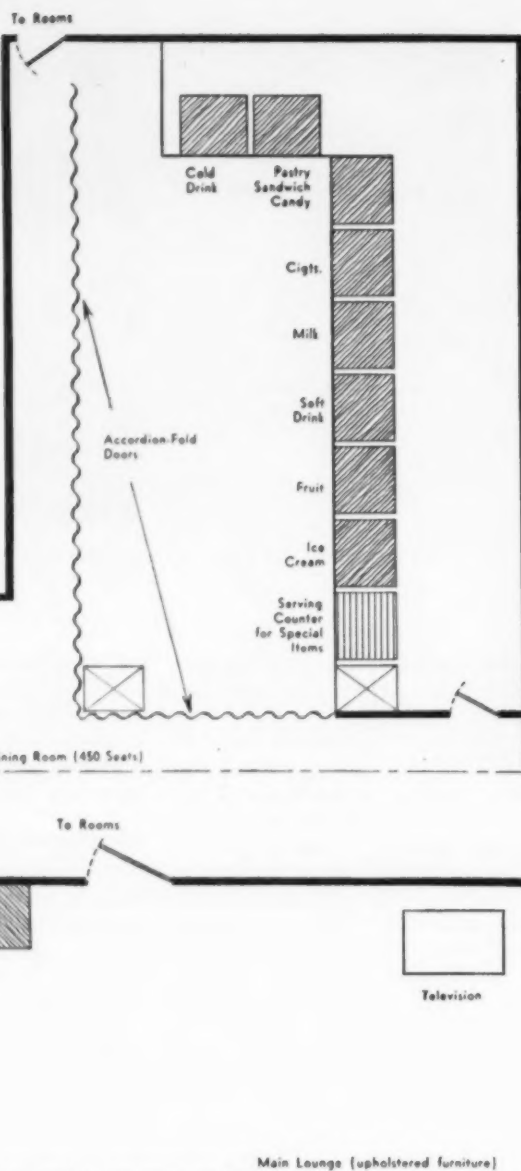
This is the day of specialization. The fry cook does not serve as a general foods handler; the dishwasher does not clean the service area. It is costly to conduct a feeding operation in terms of labor alone.

In a vending operation, few extra people are needed to provide greatly expanded food service. At K.U., with more than a hundred machines, we have two full-time people on our vending staff, with seven students working on a part-time basis servicing the machines. In the patronage of our machines, fluctuations of trade do not represent a cost factor insofar as help is concerned, and we find that the central production kitchens look with favor upon a large order "on a wholesale basis" for the vending operation.

In the matter of quantity control, vending places responsibility at the central preparation area, instead of at the discretion of an employee in an over-the-counter operation. Quantity or portion control at the production level is the only way high volume business can be successfully handled. In our central food operation, we maintain quantity to the fraction of an ounce.

(Con. on p. 38)

SUGGESTED FLOOR PLANS



(Continued From Page 37)

The importance of a trained foods person cannot be minimized at this point. If a food operation loses a penny per transaction (and this is not at all impossible where careful planning and supervision are absent), this can quickly mount into a sizable loss. It is much easier to control quantity consistently than it is to regain losses suffered because it has been neglected.

Vended products that are purchased from quality suppliers, of course, are also of consistent quantity. And quantity control is important from the point of customer good will, for no one wants to get less than his neighbor for

the same amount of money. With the scarcity of trained food supervisors, central production and quantity control become economic necessities.

Atmosphere Is Important

Vending offers an opportunity to link successful production with satisfaction at the serving level for a quality food operation. It is a pleasant experience to get a delicious product out of a machine rather than an average or a poor product from an indifferently run cafeteria or snackbar. Quality products involve the entire vending operation and call for dependable equipment, skillful perform-

ance, good products, and a pleasant atmosphere.

We do not intend to compromise quality in any aspect. Each vended product is just as good as the same product purchased in the snackbar. For instance, the Hawk's Nest is famous for its delicious sandwiches. All sandwiches for the vending machines are made fresh each morning, sealed with a hot iron into a transparent package printed with the Hawk's Nest trademark, and delivered to the venders. This identification is necessary to inspire confidence in the product. It is, in fact, difficult to sell anything edible without brand identification. People want to know where the food they buy comes from; they want to be reasonably sure of its sanitary preparation, and they want to know to whom to complain in case they don't like it!

Vending equipment is a sales medium through which we can give the product to the customer in just as good condition as it was when it came from our kitchens or when it was delivered by a reputable supplier. Once we are satisfied with the ability of the vending equipment to perform efficiently, to keep the product properly chilled or heated, and to deliver it at the drop of a coin, we turn our attention to its appearance and the area where it is placed.

New Age of Food Service

Vending equipment must be representative of the fine products within. Through design, through art work, and through pleasant surroundings, it can contribute greatly to the enjoyment of items purchased. This is an achievable goal. Too often the appearance of venders is neglected, and they are placed with little thought to convenience of the customers. We intend to pay the same attention to the overall appearance and decor of our vending areas as we do to our finest dining facility. It goes without saying that both equipment and surrounding area must be kept immaculately clean.

We have already entered a new age of food service on our campus. Undoubtedly the picture will change rapidly in the next few years, but we are confident of our ability to meet any situation that may develop through our threefold program of good central production, proper distribution, and supplemental machine selling. ■

A HUMAN commits what another permits" is a popular saying that implies the superiority of fraud prevention to fraud detection. In other words, inadequate business controls or the breakdown of formerly adequate ones make possible many fraudulent acts. Though fraud prevention is superior, internal auditors and others of the administrative team, nevertheless, must be constantly alert for the signs of fraud. This fact was pointed out in the 10th article in this series which appeared in last month's issue.

When auditors "run into" or receive a tip about an apparent case of fraud, a problem arises as to what procedure should be followed. The details for properly handling a case of fraud may be classified under three headings: (1) reasonable suspicion, (2) definite proof, and (3) extent determination.

Reasonable suspicion. If, in the opinion of the auditor working on the audit examination, there is evidence of fraud, he should report the apparent set of fraudulent facts to his supervisor. If the auditor and his supervisor together exhaust all other possible explanations for the set of facts making up the irregularity, this reasonable suspicion is reported to the chief auditor who, in turn, reports it to the chief business officer or controller. The latter notification serves to back up and protect any who pursue the investigating activity that will ensue.

Definite proof. In preparation for "quiet" intensified work on the case, the auditors hold a meeting to decide upon further audit and work procedures to be used. The purpose of the further work would be to uncover other sets of facts providing additional similar and/or dissimilar irregularities and, therefore, additional evidence and proof. The pattern or patterns of fraudulent operation also would be established by such work.

When no doubt remains that the performer of the unusual sets of facts is a defalcator, the chief auditor again notifies the chief business officer. The latter, in turn, notifies the insurance company and calls into the case the security officer of the institution.

Extent determination. The extent, in time and total amount, of the embezzling is determined, if possible, and the length in time of the proof is determined also. The auditors meet and decide how far back in time their examination can or should extend. The se-

No. 11 of a second series

Auditors Aid Administration Through Fraud Disclosure

A. E. MARIEN

Internal Auditing Division, University of Illinois, Urbana

curity officer meets with the auditors and is briefed on the circumstances of the case. He, in turn, may advise the auditors in connection with further procedures.

For instance, the auditors' multiple written evidence from a legal point of view may have to be prepared as separate sets of facts, each representing a "count." A separate set of working papers may have to be prepared for each separate commission of embezzlement by the embezzler as far back as adequate proof exists. Also, the security officer may inform the auditors of certain "detective" work his office would like to do—the purpose of such being to exhaust all noninterviewing sources of incriminating information.

When the extent of the defalcation and of the proof is determined, the chief auditor once more notifies the chief business officer. The business officer will notify the legal counsel of the institution and, in the case of a state supported college, the state's attorney as well.

Final Procedure

The final procedure of the security officer—the one culminating in a signed written confession—is the interview with the defalcator. The signed written admission of guilt obtained from the embezzler must not, in any way, be coerced. A forced confession would not "stand up" in a court of law. Since all parties involved in a proved case of fraud ordinarily prefer the minimum of publicity, full restitution by the defalcator of all proved amounts of the peculations is often obtained. Such a settlement would, of course, preclude

the filing of an insurance claim. Although the institution may refrain from pressing legal prosecution, such refraining must not be on the basis of a bargain for restitution.

In an educational institution, the auditors' examination of a service dealing with the distribution of a product showed that credits were posted from internal transactions but none from external transactions. The person in charge of the operation had been authorized by the board of control to sell at a discount to outside buyers any stock of the product which was too old for use by the institutional departments. An intensified investigation by the auditors revealed the following pattern of fraudulent activity.

The speculator would requisition for purchase a more-than-necessary supply of the product on the basis of taking advantage of a quantity discount. After the normal needs of the departments for the product were supplied, a surplus of the product too old for departmental use would result. Then, the embezzler would sell for cash to buyers outside the institution the oversupply of the product. He would pocket the money so received and not process reports of the sales.

A signed written confession was obtained from the defalcator by the institutional security officer. Also, full restitution was obtained from the speculator for the peculations that were proved. Since publicity of the fraud was at a minimum, this employee who was "short-cutting" to attain personal goals had the opportunity to earn his goals through hard and honest work with a new employer. ■

**Laboratories for
Biology and
Geology at
Rice Institute**



By
GEORGE F. PIERCE Jr.
Architect, Houston

Here Is a Practical Approach to Laboratory Design

IN THE spring of 1955 we made a trip around the country looking at recently completed college science buildings in connection with our new assignment as architects for Rice Institute's biology and geology laboratory buildings.

We had been conditioned to expect exciting innovations in these buildings, belonging as they do to a field characterized by revolutionary change. But we were disappointed. A few of the buildings were architectural expressions of science's need for great

environmental flexibility, but for the most part they reflected the same old ideas — in new slip covers.

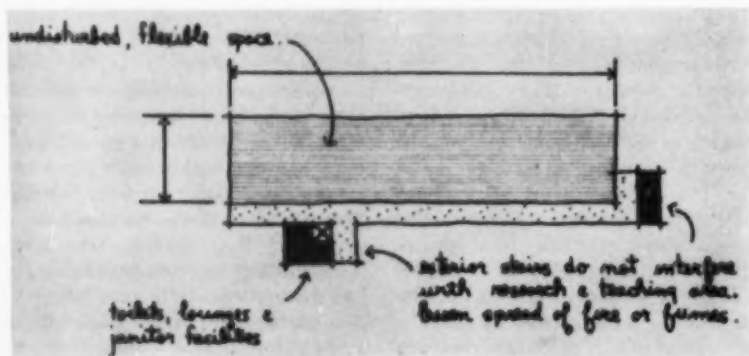
Since that time we have dredged deep into our experience, and into that of other designers; we have worked with competent and thoughtful clients, with the Rice trustees, and with our engineers. Now, three years later, two new laboratory buildings are nearing completion on the Rice campus.

Were we successful in analyzing our problem? Do these buildings really function better than traditional labora-

tory buildings? Judgment will have to rest with the teachers and research men who will put the buildings to the pragmatic test. We are confident that our approach to design was sound, and that the buildings will provide adequate, flexible laboratory space for many years to come.

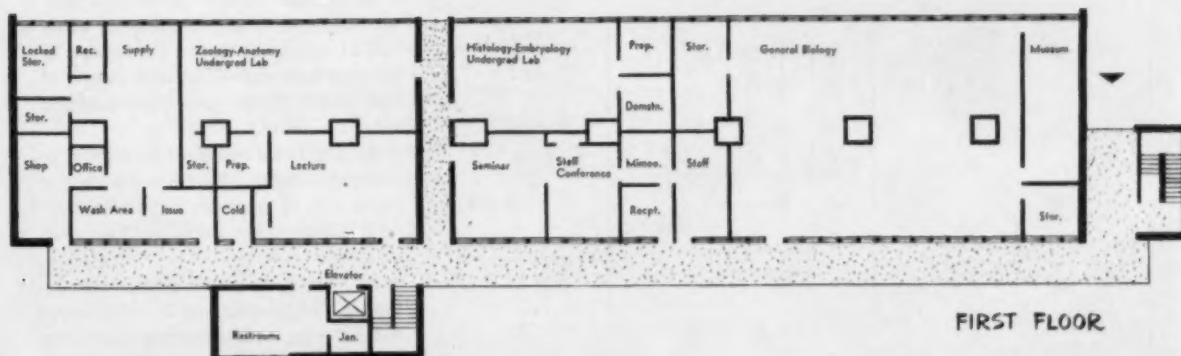
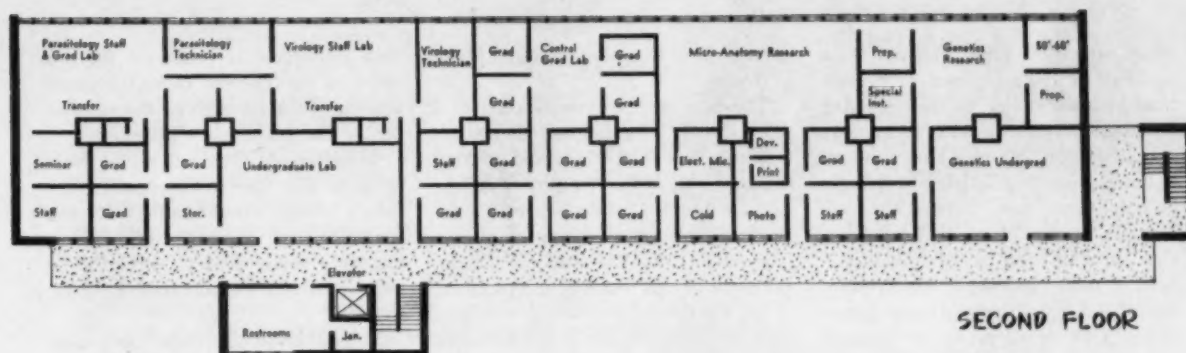
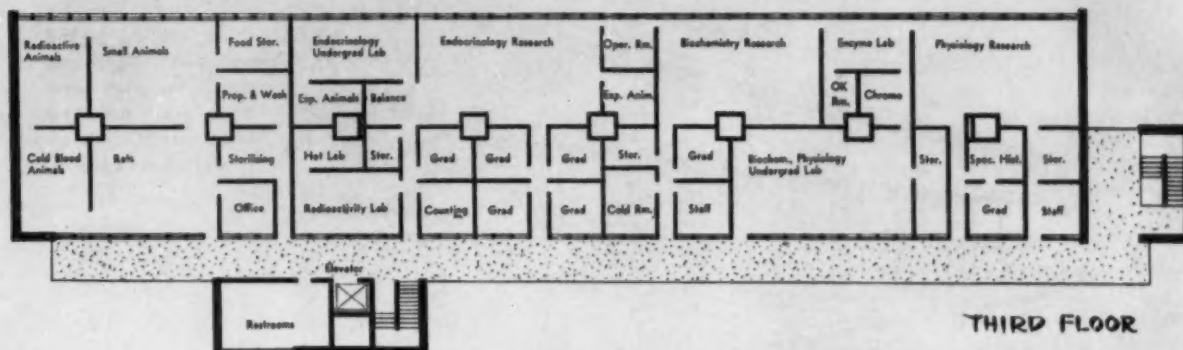
Outlined here are our conclusions regarding the design approach, and the story of its realization in physical reality.

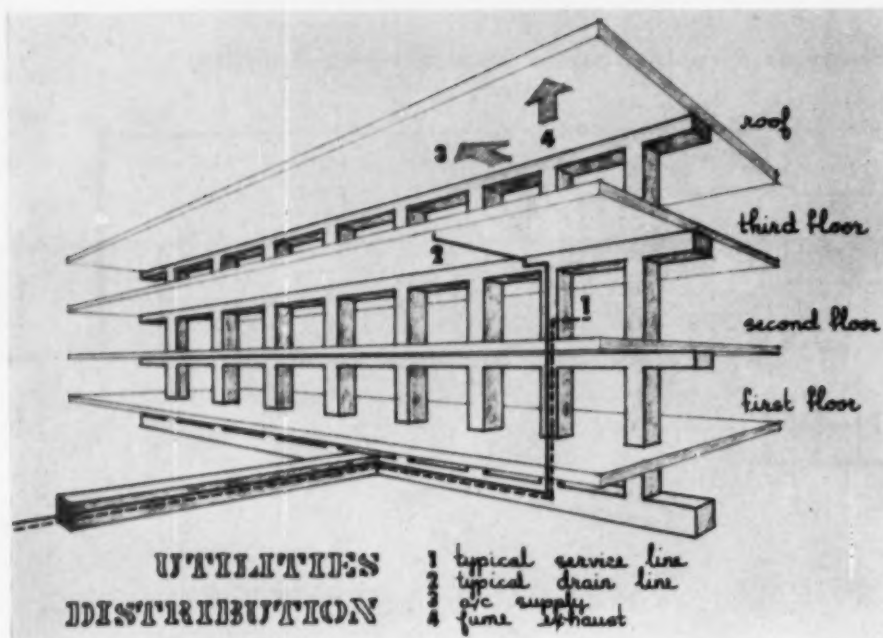
Several fairly definite observations were made as a result of the visits to



SKETCH A shows the resulting space for laboratory areas after service spaces were located outside of the air conditioned portion of the building and open air corridors were provided along south walls; overhangs on south windows.

Floor Plans of Rice Institute's New Science Building





SKETCH B (left) is a schematic view of the utility circulating scheme showing method of distributing the varied utilities to the floor space. Pipes and conduit for each service were painted "code colors" and set at uniform heights.

SKETCH D (opposite page) shows the interior of a typical laboratory at Rice Institute, Houston, Tex.

other campuses. First, that a science building must be planned to provide built-in adaptability to the changing requirements of scientific technology and education. Second, that a school building must be adaptable to changes in enrollment, even beyond the predictable future. Third, that a laboratory building must easily provide any kind of utility service to any location within it for both present and future needs. This added up to the primary requirement of *flexibility*. This idea was the only functional preconception

carried into the programming phase of design.

The next weeks were devoted to a more detailed formulation of the requirements of the biology and geology departments, with Dr. Roy Talmage and Dr. Carey Croneis, respective department chairmen, acting as clients. Too much cannot be said for the importance of this phase of the problem, or for the cooperative and punctilious work of the members of the faculties involved in defining their needs. The intradepartmental flow charts and

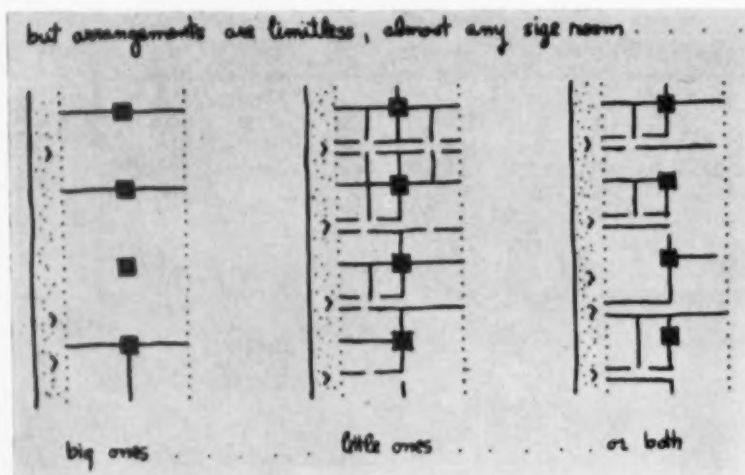
area requirements produced by this series of conferences were our guide and yardstick throughout the remainder of the preliminary planning.

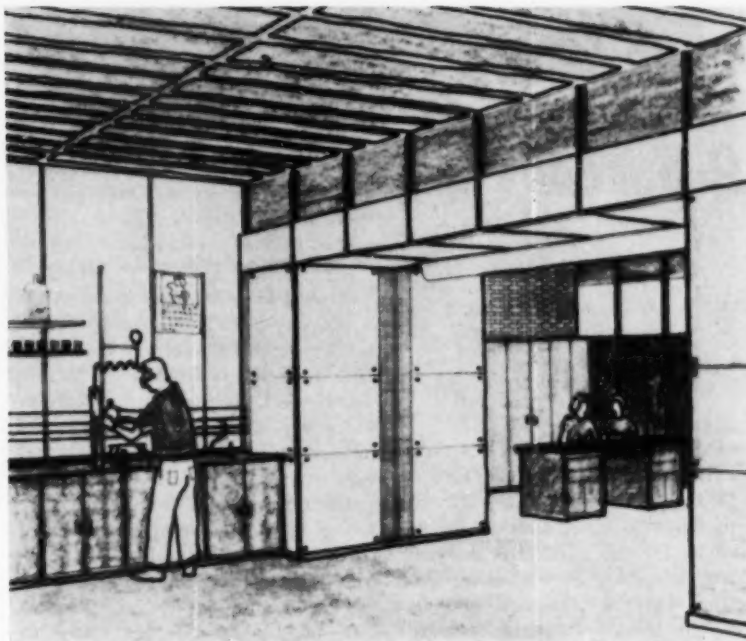
Considerable time and effort were spent at this time in determining the salient design considerations for the next phase of planning. The following were established as eight fundamental criteria for adequate final design:

1. The buildings must have adequate space for current and foreseeable departmental needs.
2. The building must be *flexible*.
3. The building must be planned for future expansion.
4. The building must be economical to maintain.
5. Spaces should be individually air-conditioned and heated, to avoid cross-contamination in the event of fire, explosion or accidental escape of radioactive substances from confined research areas.
6. The buildings must be related to existing campus structures for future expansion of institute facilities.
7. All planning should be done with an eye to economy.
8. Finally, the buildings must attain the highest standards of architectural design and character, reflecting the best of contemporary thinking.

It was now possible to put pencil to paper. We began to translate our con-

SKETCH C. Plan arrangements for future requirements.





cepts into positive architectural solutions. Reviewing our need for plan flexibility, we decided to group all of the permanent accessory spaces at the buildings — stairs, toilets, corridors — outside of the laboratory area. This provided uninterrupted flexible space for future changes in room arrangements.

We located service spaces outside of the air conditioned portion of the building, and provided open air corridors along the south walls, with overhangs for south windows. Sketch A shows the resulting space for laboratory areas.

Before looking at the kinds of room arrangements available to us, let's look at the way utility distribution was tackled. Our plan scheme offered the optimum in plan flexibility, but laboratory buildings pose a unique problem. By nature, they require an abnormal utility circulation. These may include: acid waste, distilled water, vacuum, special voltages, pressure, fume exhaust, gas.

This, of course, is in addition to the standard utilities: hot water, cold water, general waste, storm drainage, air conditioning supply and return, air conditioning fresh air makeup, air conditioning for lighting, and air conditioning for power. All of these services needed to be circulated to every part of the building.

Conventional laboratories use a center or double loaded corridor plan with utility chases on either one or both sides of the corridor. The building is immediately cut in half. If chases are used only on one side of the corridor, they are separated from half of the rooms. Chases and small closets must take up space between room doors. In other words, the building is static. It is restricted in floor plan room arrangement and in distribution of utilities.

In contrast, from our uninterrupted plan we were able to create a less restricted utility circulating scheme. It was determined that a vertical chase space approximately 8 feet square was adequate in size to serve all foreseeable utility needs for each 28 feet of length of the 50 foot wide floor space. By placing these vertical chases in the center of each 28 by 50 foot space with the corridor on one side, any point in that area was easily served, allowing flexibility in room size and arrangement.

A schematic view (Sketch B) of this system shows the method of distributing these varied utilities to the floor space. Pipes and conduit for each service were painted "code colors" and set at established uniform heights above the floor. Service lines were exposed in racks on the wall. Wall panels around the chase were made remov-

able for ease of connections or changes.

Only those specific services required by each department's needs were installed in any one chase at the time of building construction. A properly planned chase system such as this provides availability of all services, easily furnished at any time in the future from the tunnel below, which is in turn tied to the campus utility tunnel shown in the left foreground of Sketch B.

The same utility chases will also carry hot and refrigerated water and fresh air to air moving heat exchanger units located in the furred down ceiling spaces between the horizontal chases. These units are individually controlled by thermostats in the areas served.

In the sketch it is seen that it will not be necessary to cool or heat the entire building or even an entire floor in order to accommodate a limited area. This will certainly pay off in operating costs.

Now the problems of plan flexibility and utility flexibility are solved. What are the advantages?

The plan arrangement (Sketch C) for future requirements are limitless within a 4 foot module. Any utility, even of types not now anticipated, may easily be routed to any location in the building.

Other Developments

In translating these design concepts into physical reality, several other interesting details were developed. The 4 foot module was used throughout, and all plaster partitions were divided in panels by metal framing channels 4 feet o.c. The metal framing channels serve the double function of stiffening the walls and providing support for utility pipes or fastening devices for experiments.

The ceiling is exposed concrete pan and joist construction with alternate pans used for lighting fixtures and electrical service lines and for plumbing drains from floors above.

Sketch D shows the interior of a typical general laboratory space.

All of these ideas and requirements have added up to a realistic solution for the biology and geology laboratory buildings for Rice Institute. We hope that our faith in the soundness of the scheme will be borne out by experience. ■

The Trustee's Job in the Development Program

J. JAY GERBER

Gonser and Gerber, Chicago

THE college development officer has a key role in helping trustees do their job effectively. A well rounded development program involves work with many "publics" besides the board of trustees, but no development program is likely to succeed unless the trustees are (1) aware of their responsibilities, and (2) adequately serviced to enable them to carry out their responsibilities.

Responsibilities of Trustee

Specific responsibilities of boards may vary according to the terms of the charters and by-laws under which they operate. Among some institutions, auxiliary boards of advisers offer laymen most of the responsibilities of trusteeship without full power and authority for policy making. In general, however, recognition of the following principles is necessary for effective trusteeship:

1. **The trustee is a policy maker.** He should recognize the line between this function and administration. For example, establishing policy to create a new academic division is his business; meddling in the administration of the educational program is not.

2. **The trustee is a custodian.** He should insist upon sound academic policies for the preservation of our cultural heritage and sound business management principles for the protection of the funds and properties of the institution. He should be careful not to let his private interests or economic position conflict with the interests of the college.

3. **The trustee is a builder.** He is responsible not only to his institution

for the safeguarding of its resources but also to society as a whole. He can fulfill the latter responsibility only by continuing the job of building the institution for more effective service. This means *doing* as well as *legislating* and *giving* as well as *conserving*.

4. **The trustee is an ambassador.** He should study higher education in general, and his institution in particular, not only to qualify himself for policy making but also to enable him to interpret the programs, policies and objectives of the college to others. His active role as an ambassador should stand as an example to alumni, business leaders, parents and other "publics" of the institution.

Conscientious trusteeship in these four functions provides an indispensable base for the relations of any college with its "publics."

Trustee as a Person

What personal characteristics should we look for — and expect to find — in the man who accepts the responsibilities of trusteeship? Among the many qualities that may make for able trusteeship, four are of paramount importance:

1. **Integrity.** As the custodian of a public trust, and of funds and property contributed by others, the integrity of a trustee must be unimpeachable.

2. **Dedication.** The trustee must believe in the cause of higher education and feel committed to give of his time, his talent, and his personal means to its advancement through the institution he serves.

3. **Awareness.** Dedication to the cause of education is evidenced, also, in awareness of the institution's problems and programs and in willingness to learn about the meaning of educa-

tion in all its parts. There is no place for a "closed mind" on a board of trustees.

4. **Personal force.** The qualities of leadership that stem from demonstration of the foregoing characteristics make a trustee personally effective by commanding the admiration and respect of others.

Institution's Responsibility

Any effective relationship represents a two-way street. Trusteeship should not be regarded solely as the giving end, with the institution on the receiving end. Actually, any college or university worth preserving has far more to give its trustees than they can ever repay.

Institutions that do a superlative job of educating young people often fail to do any kind of job at all in educating their trustees. The man who has not learned that he has a personal stake in education is not ready for trusteeship. The trustee who does not know where his institution has been, where it now stands, and where it should go cannot possibly fulfill his responsibilities. The trustee who is *informed* is motivated to act.

No way has ever been found to make productive use of an indifferent trustee. Motivation of a man who is to be a trustee should always *precede* placing him on the board.

Trustee on Development Team

While many of the principles of management and finance that apply to business apply also to colleges, there are important areas of difference. One of these differences lies in the fact that while a business enterprise may increase its sales by hiring additional salesmen, a college cannot afford to hire enough representatives to raise all the money it needs, recruit all the students of the kind it wants, and tell its story everywhere it should be told. As a consequence, educational institutions must look to *volunteers* to do a large share of the promotional and interpretive job for them.

Because no development program can hope to succeed without such volunteers, everybody in the college or university family has a development role to play, in addition to his specific responsibilities in the institutional table of organization. The coordination of this type of participation through a department of development

Presented at a meeting of the board of trustees of Nebraska Wesleyan University held at Grand Island, Neb., 1958.

is an art and science. *But no amount of organization or technic is going to make a development program work unless it is given leadership by trustees who are willing to assume a functional role in the advancement of higher education.*

As a member of the development team, the trustee must recognize the college president as the *operating head* of the institution. Anything the trustee does on a *functional line* should be done through the president and his working organization. Too many college presidents have had to stand alone in their jobs. No matter how great his personal stature, the effective shadow of the president is a lot longer when he has a good board back of him, making policy, and, with him, working to accomplish the things that must be done.

Rewards of Trusteeship

In his business, the trustee operates for personal profit. In his relation to a college, he operates for the profit of society. His stake in the latter type of profit is no less real than his stake in the former. There is room for both altruism and self-interest as motivating forces behind effective trusteeship. The important thing is that the motive be truly impelling. A tough "enlightened self-interest" is better than a flabby "altruism."

Few citizens have a more critical role to play in helping shape America's destiny. College trustees stand as watchdogs for the institutions upon which the preservation of our civilization depends. They are there to make it possible for the teacher to do his job — and in this sense are custodians of the hearts and minds of young people, of the training ground for specialists in all lines of endeavor, and of the source of new ideas and knowledge. Their awareness of the job that needs doing should prompt them to challenge their administrators and faculties to come forward with the programs that are needed.

Effective service as trustee of an educational institution should represent an accomplishment that will head the list when a man's life has been run and his record written. It is up to our colleges and universities to make trusteeship that demanding a job — and to put the kind of judgment on it that makes an honorable accounting a priceless reward. ■

Why Small Colleges Want To Stay Small

W. E. CAMP

Treasurer, Wells College, Aurora, N.Y.

THE average small college in the United States has decided to stay small and let the larger institutions expand to provide additional educational opportunities for our increasing college-age group. Many are resisting pressures for expansion and are limiting their enrollments to figures that are set arbitrarily. Nearly one-half of a cross section recently surveyed have established limits.

This fact in itself has not been so surprising, but it has been interesting to learn some of the reasons for the decisions. The reason given most frequently was not that of financial limitations, which might have been expected, but rather the educational philosophy of the college.

The scope of the problem is so tremendous, and so much publicity has been given to point up the areas of consideration on a national scale, that many have been led to believe that the greatest worry is that of financing any expansion. Over the nation this is probably still the major concern for the larger institutions, but for the smaller units finances are not the only consideration.

For this survey the year 1953 was chosen from which to make comparisons as that year represented the low point in postwar college enrollments, and that was also the base year upon which significant projections were made of the great increase to come. Ronald B. Thompson published in 1954 "The Impending Tidal Wave of Students," in which he predicted an increase of 70 per cent in the age group between 1953 and 1970. The increase will not be evenly spaced in these years; the flow will be in waves, with the greatest surge coming from 1965 to 1970.

The validity of these estimates may now be judged from what has actually happened to total college and university enrollments in these last four years. In 1953 there were 2,251,000 students in our colleges and universities; in 1957 the number was approximately three million, an increase of 33 per cent. Within the college-age group the percentage attending institutions of higher learning has been increasing, from 5 per cent in 1900 to more than 30 per cent today.

Forty colleges that had enrollments in 1953 of 1800 students or less replied to several questions comparing registrations in 1952-53 with 1956-57 and with 1957-58. They were asked also for information about the establishment of enrollment limits and about additional facilities needed. These colleges varied in size between 100 and 1800. The average size in 1953 was 547, and they were distributed geographically over the entire country, with greatest concentration in the Middle West.

Results of Survey

From 1953 to 1957 the average enrollment in the small colleges surveyed increased 28 per cent, and from 1953 to 1958, 36 per cent. The average size increased from 547 in 1953 to 698 in 1957, and to 746 in 1958. Although these averages show sizable net increases, included are three colleges that show reductions in numbers, ranging from 4 per cent to 29 per cent. The smallest percentage increase over the entire period is 3 per cent and the largest is 160 per cent.

Of these smaller colleges 40 per cent have established the top limits for enrollments by actions of their governing boards. Those that have set

limits show provisions for an average increase of 28 per cent over 1953, and half of them have already reached or almost reached those limits. Most of the limits have been set in the years from 1954 to 1957, although two were established in the 1930's.

One of the three institutions reporting reductions in size indicates that the reduction was the result of recent action taken by the governing board. Two show reduced registrations without reference to limits. The largest increases from 1953 enrollments to established limits were shown in colleges having fewer than 500 students in 1953, and here the projections averaged 105 per cent over 1953.

Where limits have been set the first reason given, in order of importance, was the underlying philosophy of education of the institution. The second reason was the physical limits of the campuses. The third was financial limitations. Of less importance were such other considerations as specialized curriculums and restricted clientele.

Few indicated that the limits were set as a result of a survey of the utilization of existing space and facilities, although 40 per cent have either had surveys made or have made them themselves.

Additional Facilities Needed

In spite of the fact that less than half have indicated that an objective study has been made of their space utilization, the responses show that considerable thought has been given to the need of additional facilities, and the type of facilities, the need of which will restrict further expansion.

Forty-five per cent need additional residence halls, 25 per cent need more classrooms, the same percentage need more space for libraries, laboratories and food service, and 13 per cent need

more and better faculty housing. Most of the responses indicate the need for more than a single facility, and 23 per cent show a need for more than one residence hall. The multiple needs recurring oftenest are for a combination of dormitory and laboratory space.

Conclusions

From 1953 to 1957 the institutions sampled increased in size 28 per cent, against the national average increase of 33 per cent. The smallest units, varying in size from 100 to 500, have, on the average, doubled their enrollments in this period. Forty per cent have established enrollment limits, and these limits allow for increases of 28 per cent over 1953 registrations. These colleges do not plan, therefore, to roll with the tide or meet the surge expected between 1965 and 1970. No doubt some will reconsider their decisions because of the national publicity being given to the whole area of concern.

Most limits have been set because the individual colleges wish to remain small. Their individuality and unique educational concepts would probably be lost or would suffer if they should attempt to expand in proportion to the projected increase in the college-age group. They like the close teacher-student relationship, and expect to continue to educate a selected group. Of the remainder in the group, some have given consideration to limits but have not taken formal action. But the actions of the 40 per cent, by setting their sights at only 28 per cent over 1953, have already restricted the growth factor for a large segment of the small colleges.

Some of the colleges surveyed are in states where populations are relatively stable, and since 80 per cent of students enrolled in higher education attend institutions in their own states,

some of these institutions in the Middle West have not yet had to consider placing limits on student numbers. Their facilities would be available to accommodate some of the overflow from the more heavily populated areas.

The reasons given most frequently for resisting expansion were in the following order: (1) the educational philosophy of the institution; (2) size of campuses; (3) financial limitations.

Additional residence hall space is the facility most needed, generally in combination with laboratory and classroom space. This was the picture 10 years ago also, when intensive studies were made following the war. If these tendencies persist many students will need to look elsewhere for their education. The pressure upon large institutions generally, and especially upon tax supported institutions, will be increased for expansion. This will mean, of course, that individuals and corporations will support the higher educational system through mandatory tax payments. The bill will be staggering.

Industry has a stake in the small colleges of America much larger than the mere tax bite in prospect. In the country's largest commercial and manufacturing enterprises 75 per cent of management are college graduates. It requires education to produce our millions of prosperous customers and anything short of all-out support of our educational system would therefore constitute shortsighted management.

Collectively the higher educational institutions of the country should maintain the following characteristics to perpetuate our concepts: (1) They should preserve their individuality; (2) their facilities should be available to provide at least the opportunity for education; (3) their methods and practices should be made more efficient. ■

Fire Hazards in Fraternity Housing

... constitute a serious problem for university administrators. John Morris of the University of Illinois in the April issue will suggest measures that should be taken to increase the safety factor in fraternity and sorority housing.



What Is the Placement Picture?

LEWIS H. ROHRBAUGH

Vice President and Provost
University of Arkansas, Fayetteville

AGAINST the background of tight budgets, which each year get more binding, and of the pulling and hauling among internal demands, what is the placement picture? Where is it trending?

Do most institutions have organized placement offices? In those that do, where is the major emphasis in terms of kinds of placement? In complex institutions, is the trend toward or away from the centralized office? What about expenditures on placement, charges for services rendered? If we acknowledge the paucity of full and tabulated data, a (flying fast) bird's-eye view shapes up about as follows.

Probably no other facet of institutional higher education has quite the variety of organizational arrangements that obtain in the area of placement. The extremes no doubt have their primary origin in priorities on the institutional pocketbook. In some instances they stem from contrasting points of view as to the objectives of a college education.

Of the more than 1800 institutions of higher education, some 22 per cent have formally designated placement offices. These vary from the part-time, one-man faculty assignment in the small hall-end office to the situation in which professionally trained personnel is employed in planned ratio to the size of the student body, with especially designed quarters and modern equipment.

For example, size or type of institution does not constitute a yardstick.

Among institutions having no specific placement provisions is one land-grant and state university known widely for its leadership in several areas, including the administrative. A sharply contrasting situation is reflected in the reported grant by the Falk Foundation to the University of Pittsburgh of \$100,000 toward construction costs for an integrated student counseling center and placement service and first-year operating costs.

There is no typical pattern. Except for the fact that in every institution, with or without organized placement provisions, the traditional and irreplaceable highly personalized placement process involving a student, his major professor, and a prospective employer rolls along as it always did, but these days does not cover enough students.

In colleges and universities that have set up specialized placement arrangements, emphasis on service seems to be in the following descending scale, with great variation as to depth of coverage for the various groups: (1) degree receiving graduates; (2) part-time employment for undergraduate and graduate students; (3) student summer employment; (4) alumni who want position changes; (5) students leaving, with honorable dismissals, without completing degree requirements; (6) nonstudents (student wives).

Placement for degree receiving graduates receives overriding emphasis in almost every institution. When

additional services are provided, usually they have a semisatellite status and frequently are handled by parts of the institution other than the regular placement office. Many institutions combine provisions for degree receiving graduates and for recent alumni who wish help in changing employment, as the dual assignment of the organized placement office.

A 1957 student poll conducted by a southern university with relatively limited resources to put on placement, and a concern that these be put where most needed, brought a clear expression of preference for the foregoing list of priorities. Some placement offices handle, along with other functions, that of finding employment for students' wives, and in some instances serve as recruitment channels for all university offices using nonstudent "transient personnel." Both these arrangements seem to be on the wane, with these two roles assumed increasingly by a personnel officer in the business office, or some equivalent thereof.

In a number of situations the institutional placement office has a working arrangement with the local office of the U.S. Employment Service. Usually part-time employment for students and wives is handled by U.S.E.S. As regards higher education, the major U.S.E.S. concern is the placement of graduates. It is reported that in some places U.S.E.S. has provided the personnel and has headquarters in the institution's placement office. U.S.E.S. operates a

national clearing service, and has testing services available.

The niche the placement office occupies in the organizational structure of the institution varies between the two poles of a centralized unit, which handles the problems on a college or universitywide basis, and the situation, usually in the complex institution, where each major area of instruction has its separate organized facilities. Thus Florida State University has a central office of vocational guidance and placement that covers all placement, including that of teachers. The University of Illinois, on the other hand, has a coordinating placement office that carries out policies and procedures, approved by a coordinating placement council responsible to the president and composed of nine members representing major administrative units of the university. In complex institutions, it is noted, teacher placement frequently still operates autonomously.

General Trend

Among institutions with formally organized placement offices, the general trend seems to be either toward a central office with full responsibility for placement operations or toward the situation in which there is central coordination for responsibility of placement functions decentralized by colleges or departments. In these situations the development and use of standard forms, the single-channeling of correspondence with employing companies and individuals, and related steps are felt to make for economy and efficiency as well as wider use of the values inherent in contacts among individual faculty members, students and employer interests. Both attempt, not always successfully, to preserve and make full use of what a *COLLEGE AND UNIVERSITY BUSINESS* article called "getting the faculty into the placement act." Tied to these trends is the growing effort to effect close organizational relationships among student placement, vocational counseling, and related functions.

What institutions spend on placement is one of the areas in which available data are least illuminating. Contributing to this unclear picture are the problems of definable costs, direct and indirect. According to a study presented in 1955 to a midwest

placement officers' conference by Robert Calvert Jr., University of Illinois, among institutions having formally organized placement services the typical office consists of one man-year (whether it be a placement specialist, a secretary, or a clerk) of placement resource for each 140 students graduating, with expenditures at the annual rate of \$25.60 for each degree receiving graduate. These provisions, it will be noted, are direct and easily identifiable ones. How many additional indirect costs are involved, such as in faculty consultation and correspondence, remains an unknown.

Based on data drawn from a 71 per cent return from questionnaires sent to some 250 selected institutions having placement offices, the same study has other interesting generalizations. Publicly supported institutions appear to spend the least per-graduate placement. Of these, the larger the institution the lower the relative expenditure. Among privately supported institutions colleges for women provide more, and thus more costly, placement services than do any other group. Among all institutions reporting, the highest expenditure per graduate was \$74.80, the lowest \$16.70. Translated into the placement man-year ratio per graduate the highest was one placement employe for each 53 graduates; the lowest was one for each 444 graduates.

Usual Procedures

The usual procedures followed by the formally organized placement office typically include at least: maintaining a mailing list of employers that have been in touch with the institution in the past; setting up in the early fall a schedule for a whole year of campus visits by employer representatives; contacting students, ranging from solicitation to compulsion, for registration, and the development thus of graduate credentials; issuing to the list of employers tabulations of prospective graduates by major fields, infrequently including grade tabulations; making available to students prior to interviews background material on employer firms; riding herd on employer-student interviews, and, finally, trying (the word is used advisedly) to complete records on actual student placement.

In recent years colleges and universities have been overrun with recruitment representatives. Competition has been and remains heated. This has led to many problems, some basic, some ludicrous. Considerable publicity has been given the effort to set up for employers and graduates minimum standards of entertainment and related offerings. Not unknown have been instances in which one company's recruiters present to interview graduates have recruited recruiters also present from rival companies. Cases are common in which representatives of companies interested in employing graduates in a given field have outnumbered available graduates in that field. Usually the field cited is engineering.

Try for Balanced Pattern

Most institutions try to develop a balanced pattern of placement relationships involving both local and state firms, and the large national companies. Close and continuous recruitment relations with the former are considered important for a variety of reasons, including the values such ties hold for possible future "lean" employment periods. But the impact of the large nationally recognized companies with well organized and heavily staffed recruitment programs is strong and is especially felt by the complex college or university. As a consequence, the pattern of placement leans more in this direction than is wished, and the balance cannot be maintained.

For many an institution student placement remains, either quantitatively or qualitatively, an uncertain area of some concern. How much real placement occurs is difficult to determine. What the financing arrangements should be (some institutions charge a fee, others do not) and what if any portion of general institutional funds warrant expenditure on this function continue to pose problems.

In terms both of factual data and of effective organizational approach these and many other aspects of placement require more penetrating answers than higher education now has. They are required not only in their own right but because the worsening financial situation in higher education increasingly will require difficult allocation choices. ■

BASIC RESEARCH IN FREE EUROPE

PART II

C. C. DeLONG

Bursar, University of Illinois, Urbana

Mr. DeLong went to Europe to find out how universities over there are faring in regard to basic scientific research programs, including those sponsored by central or provincial governments and private industry. He returned feeling more strongly than ever that, if the morale of research and teaching staffs and the quality of work performed is to be of high order, our universities must resist government control to the limit.



A SUBSTANTIAL portion of the basic research in The Netherlands is conducted by the six public institutions of higher education — the institutes of technology at Delft and Eindhoven, the universities of Leyden, Utrecht and Groningen, which are supported by the government, and the University of Amsterdam, which is supported by the city in which it is located.

As in many countries other agencies have also been established to promote research. These are the Central National Council for Applied Research (T.N.O.) and the Netherlands Foundation for Pure Scientific Research (Q.W.O.). These agencies make grants to the educational institutions

and also directly support the work of scientists who are not on the faculties of the universities.

Although in the past the activities of the institutions of higher education have been rather strictly set forth and limited by public law, the trend in recent years is to give them more and more autonomy. Generally, the governing board of each institution is appointed by the Crown. Contrary to the practice in several other European countries, the receipt of gifts and grants from private sources is encouraged and is increasing, although still limited in amount and requiring the approval of the Minister of Education before acceptance.

Although the major source of support of the entire system of higher education and basic research is thus from governmental appropriations, there is a great deal of opinion that the

institutions should be granted more autonomy, both as to internal operations and academic and external policies. This view is supported by many individuals in government as well as in the institutions; accordingly, a period of growth and rapid development is being experienced in the six institutions.

For example, until two or three years ago the technical school at Delft, which in fact is fast becoming a university and one of the major technical schools of Western Europe, was directly under the control of the Minister of Education. Recently, however, a board of governors has been authorized, and the president of that group has, in some respects, the responsibilities and authority of a president of an American institution. However, the Minister of Education continues to exercise general control and holds the

Based upon studies made in the spring of 1958 in Western Europe and Great Britain. The countries of Free Europe not included in the study are Greece, Yugoslavia, and the countries of the Iberian Peninsula and of Scandinavia.

authority to exercise a more detailed control, if he so chooses. A spirit of initiative and a desire to grow and progress seems to permeate the entire Dutch system of higher education and organization for research.

Switzerland

The organization and financing of higher education, including basic research, in Switzerland more nearly resembles those functions carried on in the public institutions of the United States than does any other European country. The constitution of Switzerland places the responsibility for education principally upon the 25 cantons, which comprise the Swiss Federation and correspond to the states of the United States in many respects. The only institution of university level supported by the Swiss federal state is the Institute of Technology at Zurich. Seven cantons maintain universities, which are the universities of Basel, Bern, Zurich, Geneva, Lausanne and Neuchatel, and the Catholic University of Fribourg, which is supported in part by the Catholic church as well as by the canton.

As to basic research, the most important institution is the Swiss Federal Institute of Technology at Zurich. This institute has the same type of dual control that is inherent in the German universities and certain universities of other European countries. The rector, who is the academic head of the school, is elected by the teaching staff and has the responsibilities of academic administration. Of virtually equal responsibility is the president, who is appointed by the federal authorities and who has the responsibility for finance, physical plant operation, building programs, and for federal relationships and the preparation of the appointments to the professorial staff.

There is no minister or department of education for the federal state in Switzerland, as is usual in other European countries.

The relationship of the six canton supported universities with their state governments apparently is quite similar to that experienced by the state universities of the United States. All involved with the subject in Switzerland stress the fact that each institution has virtually complete autonomy once it has received its appropriation.

In conducting basic research, the educational institutions are assisted by

several other agencies. One of these is the National Foundation for the Promotion of Scientific Research, which is supported entirely by the federation government.

This foundation is governed by a board of founders, on which is represented the universities, industrial corporations, cultural societies, and labor unions. Members of the board were initially selected by the government, but it is self-perpetuating. A committee of this general board, which is called the *Forschungsrat*, consists of men of great competence and distinction in their fields, who allocate funds from the Swiss National Fund for Grants for Research. It should be stressed that while this foundation is supported entirely by the federal government, the majority of its members are not representatives of the federal or state authorities.

Apparently a proportionately larger volume of gifts and grants comes from industrial sponsors in Switzerland than generally is true in other countries of Western Europe. Such grants are controlled entirely by the universities or institutes and not by the government or by individual staff members.

C.E.R.N.

C.E.R.N. (European Organization for Nuclear Research) is one of the most interesting research organizations presently operating in Europe, both as to the scientific work that is being done and the implications of future cooperation in programs of basic research. The nations that organized and are supporting C.E.R.N. consist of Belgium, Denmark, France, the German Federal Republic, Great Britain, Greece, Italy, the Netherlands, Norway, Sweden, Switzerland and Yugoslavia.

The organization is currently engaged in building a 25 GeV particle accelerator (the Euratron, a proton synchrotron). A 600 MeV synchrocyclotron came into operation in August 1957.

C.E.R.N. is governed by a council composed of two representatives from each member state; each member state has one vote. Virtually all income of the organization comes from appropriations of the member states, based on the national income of each country; the maximal contribution by any one member state cannot exceed 25 per cent of the total amount.

In addition to the council there are two advisory boards: (1) the scientific policy committee, whose members are chosen by the council from the leading scientists of the member states, and (2) the finance committee, in which each member state is represented by one delegate.

The organization is headed by a director-general, who is assisted by a finance officer, and subdivided into six divisions, each dealing with a particular aspect of its work. Every division is presided over by a divisional director.

This organization is functioning quite well at the present time, and it is to be hoped that it will be a beginning for extended programs of cooperative research in which all the nations of Western Europe will participate.

Conclusions

Certain general conclusions have been reached from this study. The policies and procedures by which research funds are administered by educational institutions, the recognition of the problems inherent in the acceptance of sponsored funds for these purposes, and the efforts to give full recognition to all costs are generally superior in the United States than to those in any country studied.

In most of these countries the influence of the central government enters into the activities of the citizenry to a greater degree than in the United States. This influence affects higher education with varying results. However, it appears that generally the less that government authority is present, the better the morale of the research and teaching staffs, and the better the quality of the work performed. This does not mean that government support should be discouraged. The opposite is true. However, there was unanimity of opinion that it should be obtained in such manner that control does not accompany such support.

The study was completed with a strengthened conviction that those responsible for the future of higher education in the United States must resist to the limit of their capacities all efforts to extend governmental control to higher education in this country. This will require eternal vigilance and the fortitude to say "no," regardless of how desirable or innocuous a proposal may appear at the moment. ■

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NEWS

Colleges Appeal for Building Aid . . . Accreditation Lost by Theological School . . . Ask \$62 Million for Student Aid . . . Colleges Oppose Non-Red Oath . . . Hawaii Has New Mormon College . . . U.N.C.F. Raises Record Sum

Set Up Home Buying Plan for Faculty

HOBOKEN, N.J. — Administrators of Stevens Institute of Technology recently announced that faculty members will be offered a plan to help them finance the purchase of new homes. The program has been worked out in cooperation with the Prudential Insurance Company.

According to the plan, any faculty member above the rank of instructor may buy a home within commuting distance of the Institute with a down payment of only 10 per cent of the purchase price.

The insurance company will carry a first mortgage of up to 75 per cent of the total price at 5½ per cent interest, and the Institute will provide a second mortgage of up to 25 per cent of the purchase price at 4 per cent interest.

The home must be for year-round occupancy, and the price cannot be more than the appraised value.

More faculty members will be eligible for first and second mortgages of 25 years' duration, although both Prudential and the Institute reserve the right to grant 20 year mortgages to older faculty members.

Theological School Loses Accreditation

PHILADELPHIA.—Temple University School of Theology has lost its accreditation, it is reported by the American Association of Theological Schools.

Several alumni believe the association decided that the school "lacked a proper ratio of full-time instructors to students."

At present, 64 undergraduates representing nine denominations are enrolled at the school. At this time last year, there were 108 students from 18 denominations.

The loss of accreditation applies only to the undergraduate school and

the standing of its bachelor of divinity degree. Temple University originated as a school of theology 75 years ago.

Big Loss in Library Fire at Lewis College

LOCKPORT, ILL.—A loss of \$230,000 was reported as a result of a fire that swept through the library of the Lewis College of Science and Technology.

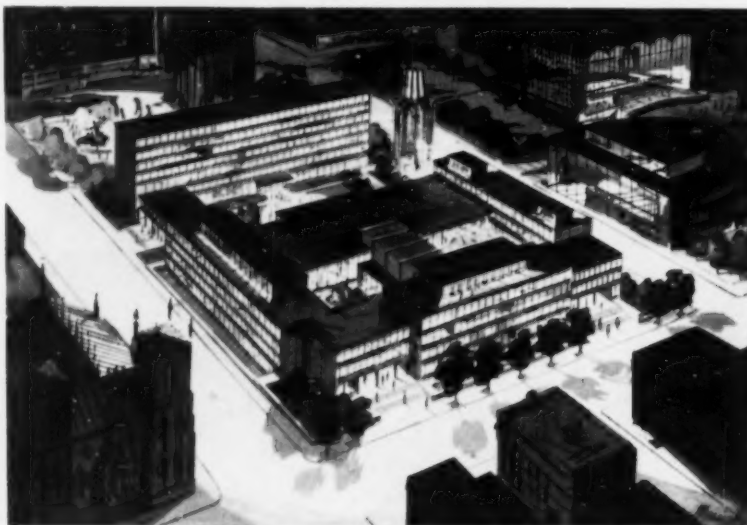
Paul X. English, president of the Roman Catholic institution, estimated that fire damage to the building amounted to about \$30,000 and loss of books from \$150,000 to \$200,000, depending on how many damaged books could be salvaged.

Oppose Oath Required of Students Asking Aid

NEW YORK.—Opposition has risen in several eastern colleges in regard to the anti-subversion provision of the National Defense Education Act of 1958 which requires students seeking loans to disclaim by affidavit belief in or support of groups advocating overthrow of the government by force, it is reported by the *New York Times*.

Bryn Mawr, Haverford and Swarthmore colleges in Pennsylvania, and Bates, Bowdoin and Colby in Maine hold the position that the requirement strikes at "free inquiry and association," (Continued on Page 54)

New Mid-Town Campus for Fordham University



NEW YORK. — Fordham University has announced plans for a \$25.5 million center at Lincoln Square to house schools of law, business, social service, education and general studies. The law school will occupy the structure on the right of the central group. Adjacent to the law school are the law library and the general library; shown

also are the student lounge and auditorium buildings. Classroom and laboratory building in rear and campanile are scheduled for future construction. Building with scalloped roof in upper right corner is new home for the Metropolitan Opera, while the semicircular building facing law school is the theater for the dance.

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machines provide around-the-clock snack and beverage service at the drop of a coin. Here is equipment that's designed to meet modern school needs . . . for individual installations or a decorative, inviting refreshment center like the University of Kansas "Campus Caravan" unit shown above. Special "area treatment" ideas create a relaxing atmosphere for both students and faculty in the student union, dormitories and other campus buildings.

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which are the heart of academic freedom" as the Bowdoin faculty put it.

Bryn Mawr and Haverford authorities are so strongly opposed that they will not participate in the program unless the requirement is removed, it is reported. None of the colleges took exception to a companion requirement of the act that borrowers take an oath of allegiance. To require such an oath was held to be "a necessary accompaniment of citizenship" and the "right of the government."

At Haverford, President Hugh Borton stated that the college believes to

file the disclaimer would be "tantamount to signing away one's right to freedom of thought as well as endorsing a government action which makes the individual's opportunity for education contingent upon his personal beliefs."

President Katherine E. McBride of Bryn Mawr College said that the college "would like to apply for loans and will if the act is amended."

The Association of American Colleges and American Association of University Professors have taken stands against the disclaimer affidavit.

Colleges Ask Increase in Federal Loan Funds

WASHINGTON, D.C.—Nine witnesses for colleges and universities appeared before a recent session of the U. S. Senate banking committee urging support of the omnibus housing bill to provide:

1. Authorization of \$500 million to continue the program of low-interest loans for college residence halls. The Administration had requested \$200 million.

2. Authorization of a new \$250 million loan program for academic and laboratory facilities. The Administration has opposed this program.

3. Amend the slum clearance law to abolish the requirement that redevelopment of cleared land must be at least 50 per cent residential in those cases in which a university is adjacent to the cleared area.

The last proposal is new, and arose, according to testimony at the Senate banking committee hearing, from the increased problems that big city universities have in finding land to expand and in keeping their faculties housed near the campus.

Among those witnesses urging the amendment was George F. Baughman, vice president and treasurer of New York University.

The amendment would permit university expenditures for neighborhood improvement in cleared land to be counted as part of the one-third required contribution of the city in slum clearance projects.

Advocates of more loans to colleges for housing and academic facilities represented various college and university associations. Their plea was that colleges could not take care of the increased enrollment of the next decade without federal loans.

Chief spokesman for the slum clearance amendment was Julian H. Levi, executive director of the Southeast Chicago Commission, representing the University of Chicago. He reported that 14 urban institutions are landlocked and some are surrounded by slum and blight. This has driven faculty members to the suburbs, he stated.

Fire Destroys Dormitory

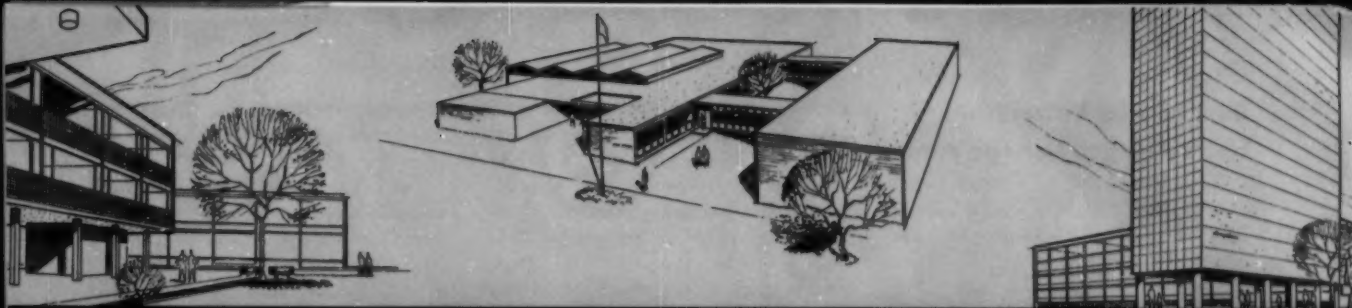
STARKVILLE, MISS.—Fire on the campus of Mississippi State University recently destroyed a four story men's residence hall. Some 1200 students escaped without injury.

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Record Sum Raised for United Negro College Fund

NEW YORK. — The United Negro College Fund raised a record sum of \$1,843,033 in contributions to its 1958 appeal, according to Stanley C. Hope, national campaign chairman. Mr. Hope, president of the National Association of Manufacturers and the SoundScriber Corporation, is the retired president of Esso Standard Oil Company.

"The 1958 campaign began, and was largely conducted, during a

business recession," Mr. Hope said. "Yet the amount contributed is the greatest ever raised by the Fund to augment the current budgets of its affiliated colleges and universities. Gifts were received from more than 3000 business firms ranging from giant corporations to neighborhood stores. Labor unions, churches, fraternal organizations, and thousands of individuals were also among the contributors.

U.N.C.F. funds are distributed among the 33 independent, accredited member colleges located, with one

exception, in the South. Their combined student enrollment numbers more than 24,000.

"No strings are attached to U.N.C.F. allocations to the colleges," Mr. Hope said. "The money is used where most needed. It provides scholarships, improves faculty salaries, and helps meet other important educational costs."

The first of America's education chests, the Fund has raised \$37,516,091 for its member colleges during the last 15 years. Gifts amounting to \$19,766,091 have been contributed to help the colleges meet their yearly expenses. Another \$17,750,000 was raised in a special five-year capital-funds campaign (1951-56) for necessary repairs and new construction.



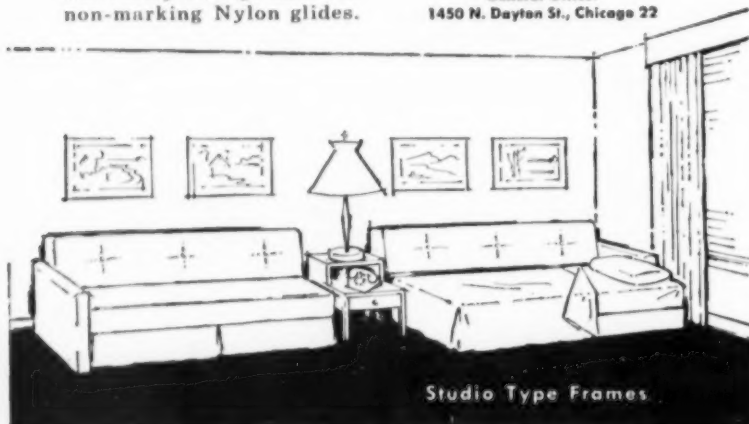
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Fifth Annual Institute on Administration

ANN ARBOR, MICH. — The fifth annual Institute on College and University Administration will be held at the University of Michigan June 22 to 26, inclusive. The institute will be followed by a two-week Workshop on the Community College, June 29 to July 10.

The program of the institute will focus around five major themes or problems of higher education. Among them will be: faculty personnel policies, philosophical foundations of the curriculum, college-community relationships, student personnel problems, and the theory and practice of administration.

The institute will be conducted by the faculty of the Center for the Study of Higher Education, including Profs. John S. Brubacher, M. M. Chambers, Jesse P. Bogue, James M. Davis, and Algo D. Henderson, who also serves as director. Other resource leaders of national recognition will participate.

Last year the institute enrolled 57 college and university administrators, representing 54 institutions from 21 states and two foreign countries.

8000 Ask Fellowship Aid Under N.D.E.A.

WASHINGTON, D.C. — Almost 8000 requests have been received for graduate fellowships under the new National Defense Education Act, but Congress thus far has only allocated funds for 160 fellowships.

Each fellowship may run three years, to be used only in work toward



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a doctoral degree. Under provisions of the act, federal payments of \$2000 are available the first year, \$2200 the second year, and \$2400 the third, plus a grant of \$400 annually for each dependent.

Some E.T.R.C. Offices Move to New York

ANN ARBOR, MICH. — The Educational Television and Radio Center will move its headquarters to New York City this month, but the national organization will maintain its present offices in Ann Arbor for several phases of operations, E.T.R.C. President John F. White has announced. The center is network headquarters for the country's educational TV stations.

New York offices will be maintained in the Coliseum Building, Columbus Circle, and will house the president, the program, development and public relations departments.

The departments of business and legal affairs, distribution and research will remain in Ann Arbor, under the general direction of Kenneth L. Yourd, vice president and treasurer. Film distribution, now handled by the University of Illinois, will be transferred to Ann Arbor.

Ask \$62 Million for Student Aid

WASHINGTON, D.C.—Arthur S. Fleming, Secretary of Health, Education and Welfare, in a recent news conference remarked that his chief surprise in implementing the provisions of the National Defense Education Act is the large sum the colleges have requested in loan funds.

Mr. Fleming pointed out that while his department had estimated \$31 million for the first year of the loan program, the colleges had requested nearly \$62 million.

Thus far, only \$6 million has been appropriated. This amount soon will be divided among 1200 colleges. The additional \$25 million will be provided in the proposed supplemental bill included in President Eisenhower's budget message. The bill, however, has not been sent to Congress by the Budget Bureau.

Mr. Fleming pointed out that colleges are now in the process of changing their policy on student aid. "The common observation before this law was passed was that student loan funds went begging. I have been told lately that that was true three years



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see pages 86-87



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ago but the policy now is to help students work out a financial program as a term starts and not wait until financial disaster strikes in April or May."

Aid to Harvard Needy Up 1200% in 25 years

CAMBRIDGE, MASS.—In his recently released annual report, President Nathan M. Pusey of Harvard University reported that 4000 of the university's 11,000 students are receiving financial aid. The money they receive

amounts to more than half of Harvard's \$11,599,688 tuition charge.

Since 25 years ago, Dr. Pusey pointed out that university income from tuition had risen 350 per cent, from \$3,314,207 to \$11,595,000. However, the almost \$6 million available last year in financial aid for needy students was 1200 per cent higher than the \$500,000 available a quarter of a century ago.

Most of the financial aid for students came from fellowships, outside sources, government, industry and foundations, Dr. Pusey reported.

New By-Law Governs Faculty Severance Pay

ANN ARBOR, MICH. — Regents of the University of Michigan have adopted new regulations to govern severance pay to academic personnel dismissed before the expiration of their appointment. The newly adopted regulations represented an approval of a new by-law recommended by the university senate (a faculty group) which reads, in part, as follows:

"Academic personnel with indeterminate tenure who are dismissed in accordance with the provisions of Section 5.10 shall be entitled to severance pay for one academic year following written notification of dismissal except: (a) where because of the character of the employee's conduct, the university is prohibited by law from making such payment; or (b) where there is competent evidence to establish beyond reasonable doubt that the employee has been guilty of a felony, or a serious misdemeanor in connection with students or directly involving the university; or (c) where there has been an intentional refusal, expressed or implied by conduct, to perform properly assigned academic duties."

Another section of the new by-law specifies that severance pay means regular monthly payments equal to the employee's salary during the academic year of dismissal, covering one academic year, except where the employee obtains other employment.

Penn Students Drink Quart of Milk Daily

UNIVERSITY PARK, PA. — Milk is an important part of the diet for students at the Pennsylvania State University.

Robert C. Proffitt, director of food service, reports that students eating in campus dining halls average more than a quart of milk per day.

Campus dining halls served 1265 quarts of ice cream during October, while during the same period the food service in the Hetzel Union Building dished a total of 5600 quarts of ice cream and used an additional 2260 quarts of mix for soft ice cream.

Nearly 6000 students live in campus residence halls and use campus dining halls at Penn State.

New Salary Scale at Wilmington College

WILMINGTON, OHIO. — Wilmington College recently announced a new fac-

"The Lustre that Lingers"



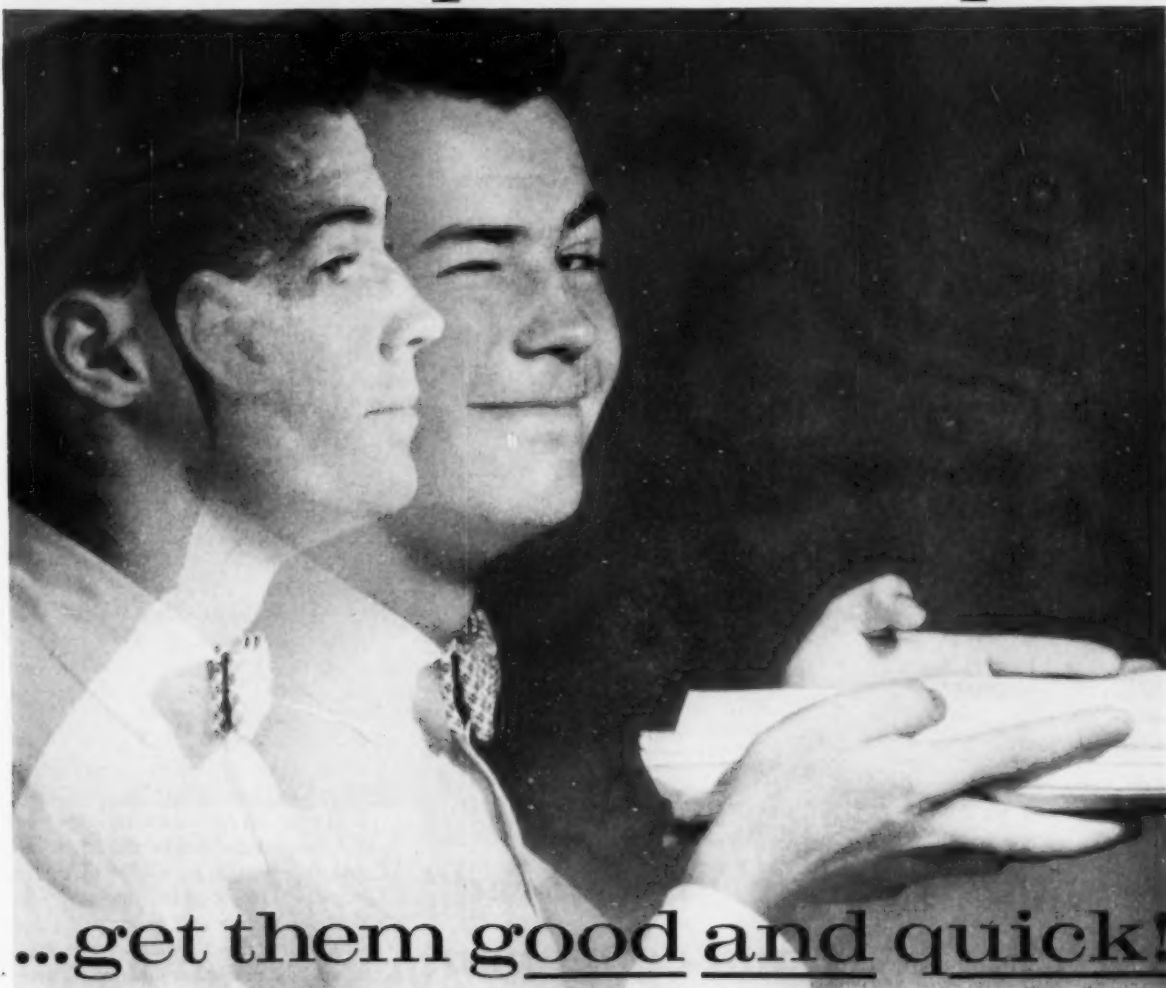
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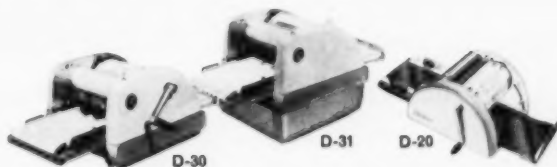
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ulty salary scale that will become effective in September. The scale will be: instructor, \$5000 to \$6200; assistant professor, \$6000 to \$7500; associate professor, \$7000 to \$9000; professor, \$8500 to \$12,500.

The new pay rate has been achieved as a result of consecutive advances over many years.

Twelve years ago Wilmington had one of the lowest scales of any accredited college in the state.

An increase of approximately 10 per cent in the pay of administrative officials also was given by the college.

Baptist College Deeded Land Worth \$2 Million

PLAINVIEW, TEX. — Wayland Baptist College has received a gift of 27 sections of land in the Texas Panhandle, valued in excess of \$2 million, deeded to the college by Mr. and Mrs. S. F. Flores of Tulia, Tex.

President A. Hope Owen called the gift one of the largest, if not the largest, single gift ever made to a Texas Baptist institution.

The land is the third gift made to Wayland by the Flores family during

the college's Golden Anniversary. The \$100,000 Flores Bible Building will be completed by June, and 1650 acres of West Texas land were deeded in October 1958 to the college.

Mr. Flores has retained a life estate in the 27 sections of land, and upon his death the gift will be placed in Wayland's permanent endowment fund.

\$2 Million Loaned to New York Students

ALBANY, N.Y. — A report by the New York Higher Education Assistance Corporation, a nonprofit corporation established last year to provide financial aid for college students, indicates a total of 3584 guaranteed loans made to students during the year.

G. Frank Ackerman, executive director of the corporation, reported that the students were attending 118 New York colleges as well as colleges in 40 other states. The 3584 loans amounted to \$2,036,972. According to provisions of the loan program, the students must arrange to make repayments within three months of their graduation and must have the loan paid off, at 4 per cent interest, within six years after their graduation.

Mr. Ackerman reported that the students now attending college under the loan program received their loans from 190 commercial banks. Students may make application for a \$500 maximum loan for their freshman year; \$750 for their sophomore and junior years, and \$1000 for their senior or graduate years. The maximum amount that any student may borrow is \$5000.

Gulf Oil Distributes Funds To Aid Education

PITTSBURGH. — The Gulf Oil Corporation, through its new six-part Aid to Education Program, distributed more than a quarter of a million dollars last year to help promote the sound growth and effectiveness of American colleges and universities.

This sum was distributed in modest amounts to many colleges and universities, rather than through large grants to a limited number of such schools.

The amount given each school was determined by a formula based on the annual current expenditure per student by the school for educational purposes and the percentage of contributing alumni. To be eligible for participation a school must be an accredited, independent, senior, degree granting, non-specialized college or university.



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sparkling Heinz Vinegar and rare spices to make the best-tasting Ketchup and Chili Sauce in the land. These two familiar "signs of good eating" are always uniform in flavor and quality . . . regardless of when or where you buy them.

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Name Research Center for Large Benefactor

DENVER.—A grant of \$1.25 million from the Boettcher Foundation has been made to the University of Denver to finance the start of construction on a science-engineering-research center on its University Park campus.

The objective of the Center will be to integrate teaching and basic research in the physical sciences of chemistry, physics and mathematics, and in the applied fields of mechanical, civil, chemical, electrical and metallurgical

engineering with applied research functions of the university's Research Institute. The latter, reported to be one of the nation's 10 largest of its kind, currently is conducting a \$2.5 million program in sponsored research for industry and the government.

By the unanimous vote of the executive committee, the complex will be named the Boettcher Center for Science, Engineering and Research of the University of Denver. The site on which it will be located has not been established pending an over-all campus development study that the trust-

tees have authorized the university to undertake, Chancellor Alter declared.

Business Management Course July 26-August 1

OMAHA.—Dean Frank H. Gorman of the college of education of the University of Omaha recently announced that the 10th annual Short Course in College Business Management will be held on the university campus July 26 to August 1.

This short course, established in 1950 by the late Charles W. Hoff, covers a wide variety of problems facing college administrators.

This year a special credit course dealing with "Problems in Higher Education" with two semester hours' credit will be offered July 15 to 25.

New Experimental College Will Open in Detroit

NEW YORK.—An experimental college will be established by Wayne State University in Detroit, with the assistance of a \$700,000 grant from the Ford Foundation. The grant will help finance the planning and initial evaluation of the new college, which will open in September.

The purpose of the new college is to develop an improved program in general education—"that common body of ideas and knowledge which every educated man should possess," according to Clarence H. Faust, vice president in charge of the Foundation's education program.

The major innovation of the new college is that all students will be required to take work in the natural sciences, social sciences, and the humanities throughout their four undergraduate years. Within these areas, customary divisions of subjects into academic courses will be largely discarded. Instead, traditional academic studies will be combined to form courses covering basic fields of knowledge. Training in English composition will be an integral part of all studies in the curriculum.

The college will also experiment with new arrangements for the better utilization of faculty time and for improvements in the conditions of learning. Courses will be taught through a combination of large lecture classes, small discussion groups, and independent study.

Since the amount of time students spend on independent study will increase as they move through the pro-

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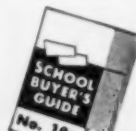
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Huntolene® Antiseptic Floor Treatment be used for daily dust mopping. We liked the idea of controlling germs that are found on floors as well as those that settle from the air.

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gram, instructional costs will be highest during the freshman year and lowest during the senior year, which is the reverse of the prevailing instructional-cost pattern.

The college will inaugurate its program with the freshman class to be admitted next fall. As these students advance, the other stages of the program will be initiated. At the end of a four-year period, a full college course will have an estimated enrollment of from 1200 to 1500 students.

The total cost for the first five and a

half years of the college is estimated at \$2,645,000. The remainder of the funds required in addition to the Foundation's grant will come from student fees and state appropriations.

Lehigh Revises Tuition Schedule

BETHLEHEM, PA. — Tuition rates for graduate school and summer session students at Lehigh University will be increased effective in September by action of the university's board of trustees, Elmer W. Glick, university

treasurer, announced recently. A \$100 increase in undergraduate tuition, effective with the fall semester, had been announced previously.

The tuition rate for full-time graduate students will be increased from \$600 to \$800 a year. The rate for part-time graduate students will be increased from \$25 to \$35 per credit hour.

\$430,000 Left to Smith by '79 Student

NORTHAMPTON, MASS.—Smith College officials reported that the college has benefited from a \$430,000 bequest from a woman who attended the college only one year in 1879.

The bequest was made by the late Miss Reynolds Clarke. The alumni association has no record of Miss Clarke after 1905, when she was listed as librarian in Gardner.

When Miss Clarke died in 1950 in Kingston, R.I., she left property worth \$250,000 in trust with the stipulation that when it increased in value to \$400,000 it should go to Smith. The college was notified that the required total had been reached sooner than originally estimated.

New Jersey Will Vote on Large Bond Issue

TRENTON, N. J.—The state senate of New Jersey recently approved a referendum on a \$66,800,000 bond issue to expand Rutgers University and seven other state institutions of higher education.

The fate of the legislation appeared to be somewhat in doubt, as an identical referendum measure passed by the New Jersey senate last year was pigeonholed by the assembly.

The proposed referendum would be placed on the ballot at the November general election. Of the total bond money, \$29,850,000 would be earmarked for Rutgers, the state university.

Cornell Increases Tuition in Undergraduate Colleges

ITHACA, N.Y. — Cornell University will increase tuition charges for students in its endowed undergraduate colleges next year. At the same time it will make possible payment of tuition costs in installments, President Deane W. Malott announced last month.

An increase of \$175 will bring next year's tuition charges to \$1425 for students in the colleges of architecture,



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should be **POWER OPERATED BY MEDART**

1 Power operation is practical economy, not an expense. All banging, jamming, general mishandling, normal with manually operated seats, is eliminated thus saving substantial costs for repair and maintenance of seats, walls and floors.

2 Seats protected by power operation give many extra years of service. The quick smooth opening and closing, controlled by automatic devices, prevents the crashing, jolting and possible damage caused by manual operation.

3 Medart power operation adds only a fraction to the cost of manually operated seats—pays for itself quickly, and continues to return exceptional dividends year after year.

4 Medart power operation requires no expensive floor tracks, no building changes or added wall reinforcing—no other conditions than are needed for manually operated seats. Only ordinary 110-volt or 220-volt electric source is needed.

5 Power operation is furnished in 2 types. Medart's Bank Mover simultaneously opens and closes all seat sections in line, up to a total length of 112 feet. The Unit Mover permits independent operation of individual seat sections.

6 Straight-line travel is an outstanding feature of Medart's power operation. Seats always roll open or closed without danger of binding, "crabbing," damage.

7 When all seat rows are not required, release of switch key stops motion instantly, leaving only as many rows as necessary opened and locked immovably in position.

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8

Medart's key-operated control switch panel can be installed at any convenient spot in the gym that allows full visibility of seats. Removable keys prevent operation by any unauthorized person.



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Vol. 26, No. 3, March 1959

For additional information, use postcard facing Cover 3.

67

arts and sciences, and engineering, the school of hotel administration, and the unclassified division. The new rate becomes effective July 1.

The additional income from students will be used to support faculty salary increases next year, improvement in the present faculty retirement plan, and partial sponsorship of a medical insurance plan, the cost of which will be shared with staff members.

Details of the installment plan, under which students will be able to stagger payment of tuition costs, have not been completed.

Mormons Dedicate College in Hawaii

HONOLULU.—David O. McKay of Salt Lake City, president of the Church of Jesus Christ of Latter-Day Saints, recently dedicated the denomination's new \$3,250,000 Church College of Hawaii at Laie, 38 miles north of Honolulu.

The college, under construction three years, comprises 20 buildings with accommodations for a thousand students. It is surrounded by 6000 acres of sugar cane land purchased by

the church in 1865. Near by is the Hawaiian Mormon Temple, completed in 1919.

NAMES IN THE NEWS

Gerald L. Maatman, member of the staff of the Illinois Inspection Bureau for the last six years, has been appointed director of the fire protection and safety engineering department at Illinois Institute of Technology, Chicago. He succeeds John J. Ahern, who resigned recently to become director of security for the General Motors Corporation with headquarters in Detroit.



F. S. Vorsanger

Fred S. Vorsanger, internal auditor at Purdue University since 1956, has been named business manager and assistant treasurer of the American

Council on Education in Washington, D.C. He will assume his new duties around April 1. Before going to Purdue in 1953 as a staff auditor, Mr. Vorsanger was associated with the public accounting firm of Ernst and Ernst, Chicago.

Frank Noffke, director of the Wilson Compton Memorial Union at Washington State College, Pullman, resigned recently to accept appointment as vice president of College Planning Associates of Kalamazoo, Mich. Mr. Noffke will take over his new duties in June.

Dr. Samuel E. Duncan, state supervisor of Negro high schools in North Carolina from 1946 through 1958, has been appointed president



Samuel E. Duncan

of Livingstone College, Salisbury, N.C. An alumnus of Livingstone College, Dr. Duncan earned his M.A. and Ph.D. degrees at Cornell University, Ithaca, N.Y.

J. W. Maynard, formerly associated with the Y.M.C.A. of Lubbock, Tex., is the new director of food service at Wayland Baptist College, Plainview, Tex.

William E. Stevenson, president of Oberlin College, Oberlin, Ohio, since 1946, on February 4 told the college board of trustees that he wishes to retire "at the early convenience of the

new

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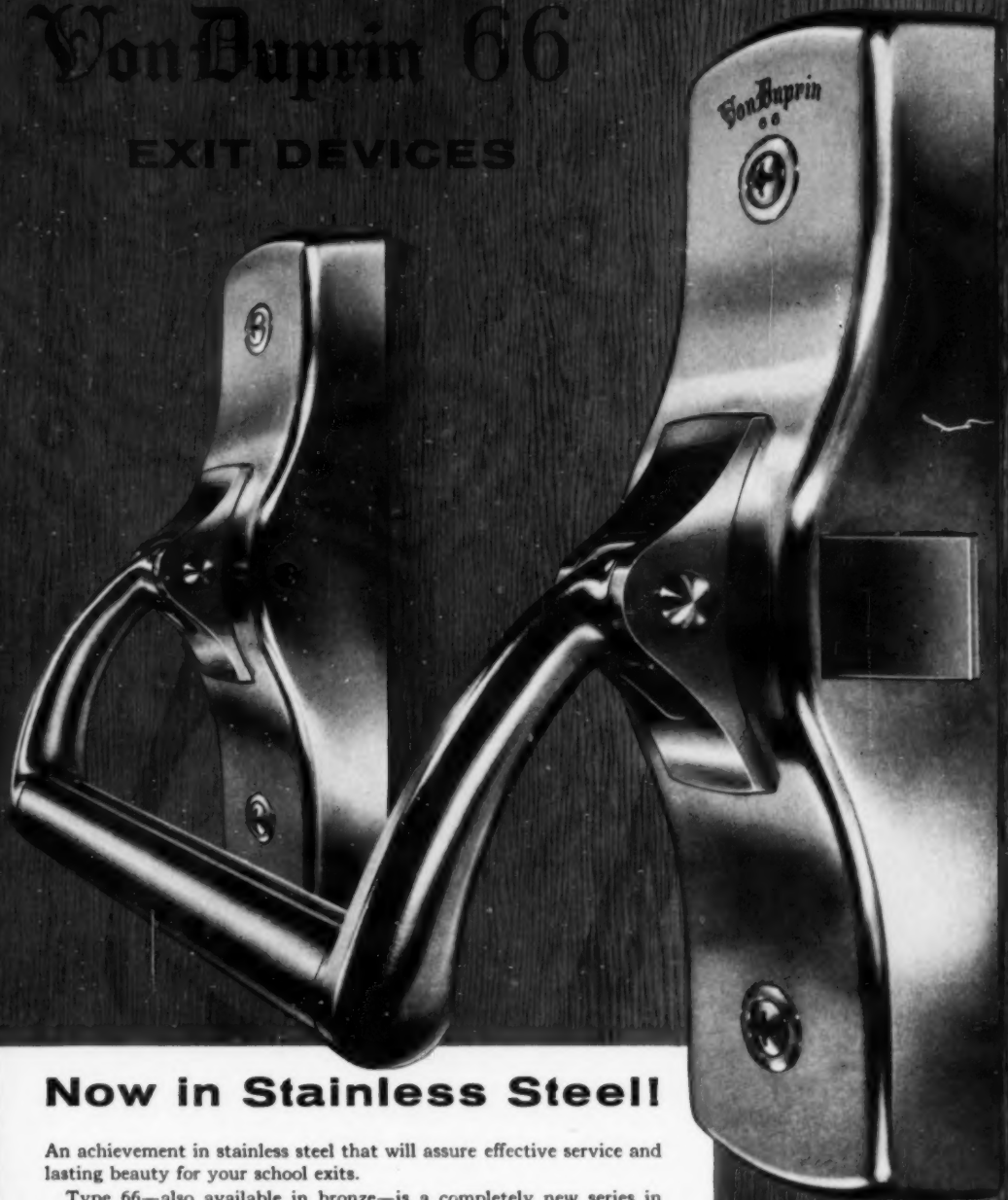
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trustees but not later than Sept. 1, 1960," to devote the remaining years of his active life to public service and other areas of his special interest.



L. F. Robbins

with the U.S. Office of Education in the Department of Education, Health

Leslie F. Robbins, after more than 30 years of service at the University of Colorado, has resigned to accept an editorial and research position

and Welfare in Washington, D.C. A specialist in higher education, he will deal with research and programming problems.

Luther S. Middleton, former cafeteria manager for Montgomery Ward and Company at Baltimore, has become director of food production at the University of Maryland Hospital. After his graduation from



L. S. Middleton

the University of Denver in 1949, Mr. Middleton joined the Sheraton Hotel Corporation and held managerial positions in hotels in New York, Cincinnati and Baltimore. He also held posts in Kansas City and Chicago while with Ward's.

Valleau Wilkie Jr., currently instructor in history at Phillips Academy, Andover, Mass., has been elected headmaster of Governor Dummer Academy, South Byfield, Mass., **Marshall B. Dalton**, president of the board of trustees, announces. Mr. Wilkie will succeed **Edward W. Eames**, who will retire after 29 years in the office. Mr. Wilkie will take over the headship July 1.



Valleau Wilkie Jr.

David B. Williams, counselor to foreign students in the office of the deans of men and women at Cornell University, has been named director of the foreign student office at Cornell. Because of the steadily increasing number of foreign students on the campus and the need for an enlarged and more flexible program, the foreign students operation has been set up as a separate entity under the vice president for student affairs, **John Summerskill**. While giving greater emphasis to the work among foreign students, the reorganization does not involve new personnel.

Dr. Kenneth E. Penrod, professor of physiology and assistant dean of the school of medicine at Duke University, Durham, N.C., has been named director of the medical center of the University of West Virginia, Morgantown, according to an announcement by **Dr. Elvis J. Stahr Jr.**, president of the University of West Virginia. The appointment becomes effective July 1. The \$30 million plant, situated on its own 145 acre campus about a mile from the main university, is reported to be one of the few such medical centers in the United States to be planned and constructed as a complete unit.

Dr. Arthur Galen Eustis Sr., executive vice president of Colby College, Waterville, Me., died January 28 of a heart attack. He was 58.

John P. Tilton, senior vice president and provost of Tufts University, Boston, died recently after a short illness at the age of 58.

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National Federation of College and University Business Officers Associations

President: C. O. Emmerich, Emory University; secretary: Elmer Jagow, Knox College.

National Federation Consulting Service, 44 Washington Street, Wellesley Hills 81, Mass. Irwin K. French, executive director.

Association of College and University Housing Officers

President: J. Arthur Pringle, University of Washington; secretary-treasurer: Leonard A. Schaad, University of Michigan.

National Association of College Stores

President: Helen Amberg, Campus Store, Colgate University, Hamilton, N.Y.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 26-30, Hotel New Yorker, New York City.

Association of College Unions

President: J. Wayne Stark, A. & M. College of Texas; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 8-11, Deauville Hotel, Miami Beach, Fla.

National Association of Educational Buyers

President: George W. Warren Jr., Baltimore Department of Education, Baltimore; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 11-13, Fontainebleau Hotel, Miami Beach.

National Association of Physical Plant Administrators of Universities and Colleges

President: M. F. Fifield, University of New Mexico; secretary-treasurer: J. D. McFarland, University of Arkansas.

Convention: May 10-13, Kansas State College, Manhattan.

American College Public Relations Association

President: Howard S. Curtis, Brown University; executive director: W. Noel Johnston, 1785 Massachusetts Ave., Washington, D.C.

Convention: July 12-15, French Lick, Ind.
College and University
Personnel Association

President: Paul A. Hartley, University of Miami, Coral Gables, Fla.; executive secretary: Donald E. Dickason, University of Illinois, Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: June 28-July 1, University of Virginia, Charlottesville.

American Alumni Council

President: Donald E. Smith, University of Rochester; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.

Convention: June 28-July 2, Grand Hotel, Mackinac Island, Mich.

Associations of College and University Business Officers

American Association

President: William M. Jones, North Carolina College; secretary: S. V. Jeter, Clark College, Atlanta, Ga.

Convention: April 23-25, Tuskegee Institute, Tuskegee Institute, Ala.

Central Association

President: Robert W. Hofer, University of Cincinnati; secretary-treasurer: Ralph Olmsted, Evansville College, Evansville, Ind.

Convention: May 17-19, Purdue University, Lafayette, Ind.

Eastern Association

President: John F. Meck, Dartmouth College; secretary-treasurer: Kurt M. Hertzfeld, University of Rochester.

Convention: Nov. 29-Dec. 1, Boston.

Southern Association

President: G. C. Henricksen, Duke University; secretary: C. O. Emmerich, Emory University.

Convention: April 19-21, Brown Hotel, Louisville, Ky.

Western Association

President: Duncan I. McFadden, Stanford University; secretary: Robert B. Gilmore, California Institute of Technology.

Convention: May 3-6, Disneyland Hotel, Anaheim, Calif.

Canadian Association of University Business Officers

President: W. J. Condo, controller, University of Manitoba; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

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New Library Addition, Kent State University, Kent, Ohio, has windows of American Lustragray glare reducing glass. Architects: Fulton, Krinsky & DeLa Motte, Cleveland. Glazier: Toledo Plate & Window Glass Co., Cleveland.



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A modern library is a place for reading—and here at Kent is the ultimate in eye comfort by the use of controlled daylighting through American Lustragray glass. Students say, "It's just like studying out-of-doors in the shade." This gray glass softens glare from the sun; subdues the direct glare and heat of the sun. These same advantages are desirable in classrooms. And that is why American Lustragray is being specified by school architects for their newest buildings. The attractive, highly lustrous appearance Lustra-

gray glass gives to the exterior of new buildings is also a reason for its tremendous acceptance. Lustragray provides all these features economically.

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Administrator—Vice-President and treasurer of manufacturing corporation desires administrative position with correlated teaching opportunity; broad experience in general administration, financial planning and management, employer-employee relationships, purchasing, sales; age 43, M.A. Degree; resumé on request. Write to Box CW 450, COLLEGE AND UNIVERSITY BUSINESS.

Bookstore Manager—47 years old; married; BS in BA, 8 years as educational consultant in auxiliary enterprises; NACS Workshop grad. Write to Box CW 436, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Man; B.S. in Restaurant Administration; 13 years all phases food production, menus, purchasing, cost and portion control, and personnel; presently employed manager student union food service. Write to Box CW 452, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Personable, enthusiastic; knowledge of menu planning, purchasing food and equipment, labor and food cost controls, budgeting, personnel development; desire relocate California or Southwest. Write to Box CW 453, COLLEGE AND UNIVERSITY BUSINESS.

Grounds Superintendent—University graduate with major in horticulture; diversified experience in landscape; thoroughly familiar with greenhouse management, exotic plants, turf management, labor, et cetera, et cetera. Write to Box CW 449, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Age 38; 12 years experience; desires California location; presently in Midwest; excellent references. Write to Box CW 451, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Architect-Engineer—University in the middle Atlantic area has position open for a registered architect with engineering training and experience to supervise and direct a large construction program extending over a number of years. Write to Box CO 291, COLLEGE AND UNIVERSITY BUSINESS.

Assistant Business Manager—For progressive privately controlled liberal arts college in Pacific Northwest, to supervise accounting, and to assist business manager in all other phases of college business management; to assume full responsibility in absence of business manager; position open June 1, 1959; candidate with some experience in small college preferred. Write to Box CO 290, COLLEGE AND UNIVERSITY BUSINESS, giving qualifications, training, experience and range of starting salary expected.

College Food Service Director—Rapidly growing New England small college is seeking high caliber young man to assume management of the college food service; the new student union building now on architectural drafting boards will house a cafeteria to serve 1000 students; snack bar, banquet and catering service will also be provided; interesting

work and permanent opportunity for qualified person. Write to Box CO 288, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Directors—Excellent opportunities are available for young men and women with food service experience; a leading food service caterer needs managers immediately for: colleges and schools; salary open; relocate. Send resumé to Box CO 285, COLLEGE AND UNIVERSITY BUSINESS.

College Food Service Directors—Leading quality-minded college and university contract feeding company has openings for capable, personable, young male graduates as college food service directors; long hours, long vacations, best income, plenty of room to advance, due to continuing rapid expansion. If you can qualify, and enjoy campus environment, send personal data sheet to Box CO 289, COLLEGE AND UNIVERSITY BUSINESS.

Dietitian—Position now open, women's college of 500; single dining hall; base salary \$5,000; meals and residence furnished; liberal retirement and health plans; one-month vacation plus holidays. Apply to A. D. Stout, Business Manager, WILSON COLLEGE, Chambersburg, Pa.

Physical Plant Administrator—Complete responsibility for buildings and grounds operation, maintenance, and repair; and minor construction projects in a rapidly growing college situation with current plant investment exceeding \$20,000,000, and total maintenance force of 80; College Degree in engineering or architecture desirable, extensive supervision experience necessary. Apply Business Manager, SACRAMENTO STATE COLLEGE, Sacramento, California.

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Clear messy, stuffed toilets
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Toilet **ALL ANGLE** Plunger

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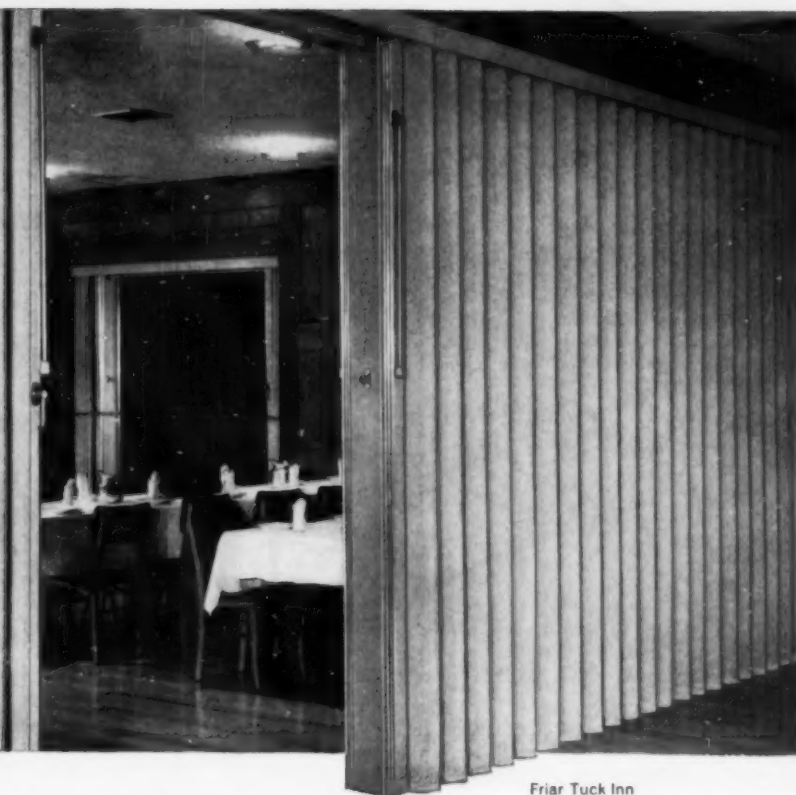
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- Minimum space requirements • Easy to operate • No floor guides • Will not bind from slight ceiling sag • Beautiful decorator fabrics • All meeting points tightly sealed • Installed weight is approximately 5.25 pounds per square foot, about half of which is represented by the four dense layers of complementary insulation.

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WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 97. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Classroom Typewriter Table Is Vibration-Free

The new model 6100 Typewriter Table is designed and constructed to meet the re-



quirements of typewriter instruction. The all-steel table base is constructed to be stable and vibration-free. The 32 by 20-inch work surface is available in either plywood or plastic and there is a large book rack. Toledo Metal Furniture Co., 600 S. Hastings St., Toledo 7, Ohio.

For more details circle #921 on mailing card

Acoustical Efficiency in Calendered Tile

Random perforations in three sizes provide beauty with excellent acoustical efficiency in the new Simpson Random Drilled Calendered Acoustical Tile. The new calendered finish is smooth and washable and the tile can be repainted repeatedly without loss of sound absorption. Simpson Logging Co., Shelton, Wash.

For more details circle #922 on mailing card

Mobile Projection Tables in Two Wheelit Models

Two new models of the Wheelit transportation-projection tables are now available. Designed for use as a projection table which is easily wheeled to place of use, the new models accommodate overhead and



opaque projectors, tape recorders, record players, typewriters, books and other items. The new non-folding Wheelit models feature high quality, balance, easy maneuverability and stability. Both models have two

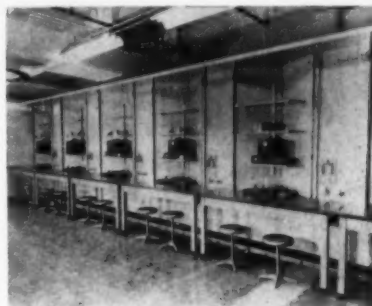
platforms with Formica tops, all-steel frame with Cromat finish and ball bearing wheels and casters. Gruber Products Co., 2223 Albion St., Toledo 6, Ohio.

For more details circle #923 on mailing card

Laboratory Set-Ups Changed With Revolving Stage

The principle of the revolving stage is effectively used in the new quick-change laboratory units recently introduced. An automatically rotated turntable at each student station permits the setting of three different classroom demonstrations at one time, any one of which may be quickly rotated by the flip of a switch to convert a physics classroom laboratory to a biology laboratory in fifteen seconds, as an example. All units can be rotated at once to change the classroom for various studies, or each one may be singly operated.

Each section of the turntable fits into the opening and locks for use. It cannot



be rotated except through the panel. Shelves may be inserted at any desired spaces or left out and any demonstration material desired set up. The pie-shaped sections are set up from the rear where teaching material is stored. Thus the same classroom may be used during the day for various laboratory classes. The laboratory was developed by Dr. Ora L. Railsback and Harold M. Skadeland of the Physics Department of the Chicago Division of the University of Illinois and is being built by Hamilton Mfg. Co., Two Rivers, Wis.

For more details circle #924 on mailing card

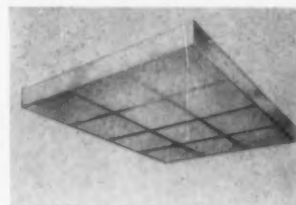
Non-Flammable Contact Cement Washes Off Equipment

A non-toxic, water-based contact cement is available in Elmer's Contact Cement. It is designed for use in bonding plastic laminates and installing wall panels. It is non-flammable, bonds instantly, yet can be washed from hands and equipment with warm, soapy water. Borden Chemical Co., 350 Madison Ave., New York 17.

For more details circle #925 on mailing card

Large Element Lighting Has Uniform Low Brightness

The new Smithcraft Large Element Lighting unit provides high levels of illumination with comfort and low brightness. The new fluorescent lighting units are



available in five sizes of pre-assembled modular units with a choice of four different shielding media. The modules have exact dimensions in both directions and can be used to create exactly any multiple of two feet in length or in width from four by four feet up. They are functional and architectural in form and may be used separately or assembled to create the low cost and utility of dropped ceilings. Smithcraft Lighting, Chelsea 50, Mass.

For more details circle #926 on mailing card

Combination Desk and Chair Has Self-Adjusting Chair Back

The self-adjusting tilting chair back on the Series 900 Quadraline Combo, with the body-molded hardwood seat and study top forms a posture unit for student comfort. It is so designed that it may be grouped front to front to form a two-student working area and the integral unit helps control aisle traffic.

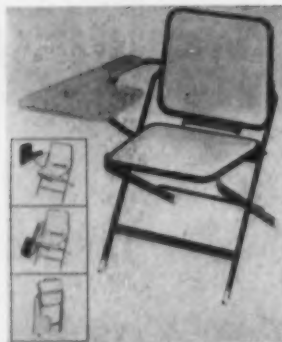
The Series 900 Combo has study, graceful lines, rugged square tubing frame, plastic marproof working surfaces, full rubber-mounted swivel glides to compensate



for uneven floors, and is finished in baked metallic enamel in modern colors. American Desk Mfg. Co., Temple, Texas.

For more details circle #927 on mailing card

(Continued on page 78)



Tablet Arm Model
In One-Hand Folding Chair

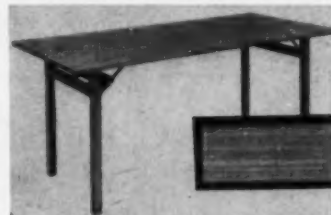
The attractive and easily-handled BTC folding chair is now available with a tablet arm. Made of high pressure decorative laminate plastic bonded to birch plywood core, the arm provides generous space for writing and reading and is properly tilted for writing in comfort. The folding arm mechanism, an integral part of the chair, is designed so that the chair can be used with or without the arm in writing position.

The sturdy chair in contemporary design offers the comfort of full seat and back. The "X" type construction in oval steel tubing provides rigidity and strength and a handle at the back permits one-hand operation in opening and folding the chairs. They are available in several finishes to fit every need. **Brewer-Titchener Corp., Cortland, N.Y.**

For more details circle #928 on mailing card

Economically-Priced Folding Tables Have HowLite Plastic Tops

HowLite, a new plastic with smooth, non-porous surface, is used for the tops of the new budget-priced Howe folding tables. HowLite seals out average stains, wipes clean with a damp cloth, and is not harmed by household acids, bleaches or hot grease. The resilient vinyl-content resists marking, absorbs the clatter of dishes, yet makes an excellent writing surface. The "Golden Birch" pattern is inlaid all the way through and does not wear off. The HowLite top is permanently bonded to a base



of solid sheet plywood and is available on two Howe square-leg folding tables. **Howe Folding Furniture, Inc., 1 Park Ave., New York 16.**

For more details circle #929 on mailing card



NOW! for the first time

a portable electric collator for \$149⁵⁰

Now for the first time ever a portable electric collator that is actually *half the price* of anything on the market. Capable of unusual high production, this new collator has the capacity to handle 8½" x 11" sheets of the normal range of office and duplicating stocks. It's portable, light weight and extremely easy to operate. A simple flip of the switch turns the tiresome, time-consuming task of hand gathering duplicated pages into sets into an efficient, effortless job... *that's almost fun!*

Ideal for schools and colleges... easily moved from department to department... perfect for multi-page examinations, agendas, instructional material and reports of every

kind. Mail coupon... or ask your stationer or office equipment dealer to arrange for a free demonstration right in your own office.



THOMAS COLLATORS INC.

Thomas Collators Inc.
Dept. Q 50 Church Street, New York, N.Y.

- ☐ Sounds good... send literature!
☐ I'd also like a free demonstration.

NAME _____
(please print)
COMPANY _____
ADDRESS _____
CITY _____ STATE _____

PolyCopy Process

Makes Multiple Photocopies

Many copies of printed, typed, written and other materials can be made from one master with the new PolyCopy photocopy process. The PolyCopy process utilizes the negative sheet made from the original. This becomes the master for making almost any number of copies and it may be filed for later use. PolyCopies are produced by means of an accessory to existing photocopy equipment known as the Polycopier. All material is reproduced black-on-white and copies are permanent with no deterioration of clarity. **Cormac Photocopy Corp., 80 Fifth Ave., New York 11.**

For more details circle #930 on mailing card

Imperial Cabinet

Combines Storage With Card File

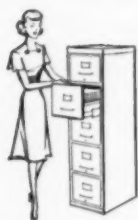
Rounded contours are a feature of the series of Imperial Cabinets introduced by Cole. Two box drawers suitable for three by five or four by six cards at the top of the cabinet can be locked with a key. A sepa-



rate lock protects contents of the cabinet which is opened by sliding tambour doors which roll out of sight for access to the adjustable shelves in the storage area. The cabinet is desk high, 17 inches deep, and is especially useful as a base for duplicating or photocopying machines, as well as for other uses. It is available in three colors. **Cole Steel Equipment Co., Inc., 415 Madison Ave., New York 17.**

For more details circle #931 on mailing card

(Continued on page 80)



Lightens the load... brightens the day... *for years to come*

ASE Furniture and Equipment is the very best you can buy... anywhere. It's built with an eye to the future... built to give service for many, many years. It's built with care. Drawers and doors operate smoothly. Bonderite coating securely anchors paint to metal assuring a permanent, lustrous finish for years.

ASE furniture is designed for efficiency, too. Makes work a little easier... more pleasant. And, of course, beauty of design and color is apparent. There's a wide choice of colors as well as desk top materials and chair upholstery fabrics.

It's good business to specify ASE when you buy school furniture and equipment. It's a long term investment in service and satisfaction.

Write for free literature. Ask for our new catalog. It contains full descriptions, illustrations and specifications. You'll find it helpful in selecting what you need. Meanwhile, see your ASE dealer. There's one near you.

ALL-STEEL EQUIPMENT Inc.
Aurora, Illinois

NEW DU PONT BROCHURE SHOWS...



How waxes containing LUDOX® can add beauty and slip resistance to your floors

Now your floors can have lustrous good looks, yet resist slips and skids. The reason: floor waxes containing Du Pont's anti-slip ingredient, "Ludox" colloidal silica.

Tiny, transparent spheres of "Ludox" in the wax layer exert a snubbing action under pressure of every footstep... give sure-footed traction for extra safety. And these slip-retardant waxes bring out the natural beauty of floors as only fine

waxes can. Maintenance is easy, too, because scratches and scuffs can be buffed out without rewaxing.

Get all the facts. Send coupon below for your free copy of the new full-color Du Pont brochure plus names of suppliers of floor waxes containing anti-slip "Ludox".

E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Dept., Room N-2543, Wilmington 98, Del.

Specify floor waxes containing
Du Pont's anti-slip ingredient,

LUDOX®



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.)
Grasselli Chemicals Dept., Room N-2543CU
Wilmington 98, Delaware

Please send: ☐ New brochure about waxes containing "Ludox". ☐ Names of suppliers of these slip-retardant waxes.

Name _____

Firm _____ Title _____

Address _____

City _____ State _____

Monosteel Desk Top Has Textolite Facing

Durable G-E Textolite plastic forms the top facing of the new Irwin Monosteel School Desk Top. The top provides the advantages of both plastic with wood core and metal frame type desk tops with increased durability and strength. The rigidly formed steel frame retains the original dimensions without warping, splitting or checking and forms a clean underside, uniform in color.

The die-formed, one-piece steel framework is attached to the book box by machine screws for positive, foolproof fastening. The smooth top is edged by an anodized aluminum rim, flush with the writing



surface, for maximum protection of the surface. The Monosteel Top is 18 5/16 by 24 1/2 inches in size and the Textolite surface is available in Birch or Sage. Irwin Seating Co., 1480 Buchanan Ave. S., Grand Rapids 2, Mich.

For more details circle #932 on mailing card

Floor Maintenance Pads Speed Wax Stripping

Two newly-developed pads designed to speed wax stripping and dry buffing without conventional cleaning materials are now available. The "3M" brand Floor Scouring Pad and the "3M" brand Floor Polishing Pad are designed for use on various floor surfaces, including resilient tile, linoleum, terrazzo, marble, ceramic, cork and wood. The scouring pad strips wax in greatly-reduced time and has a life comparable to other cleaning pads when used under similar conditions. It is constructed so that it cleans even unusually dirty floors with one pass, using a cold soap solution.

The polishing pad is designed for buffing newly waxed or lightly marred floors, and can be used damp with a mild soap solution for light cleaning followed by reapplication of wax. Both pads are made of nylon web, hence cannot rust nor conduct electricity. They resist shredding, eliminate splashing and the controlled, uniform thickness assures machine balance. A new "3M" brand Driving pad for use with the other two products is made of molded rubber with cleats which grip the pads and prevent them from "walking" out from under the machine. The pads are color-coded. Minnesota Mining & Mfg. Co., 900 Bush St., St. Paul 6, Minn.

For more details circle #933 on mailing card

(Continued on page 82)

Now... Group

**MAJOR MEDICAL
EXPENSE PROTECTION**
up to
\$10,000 For Your Students

FLEXIBILITY and PROTECTION...
are greater than ever with Educators
tailor-made Student Group Medical Ex-
pense Plans which now can include
Major Medical Protection to cover
catastrophic expense up to \$10,000 (or
less) for each student. With deductible
amount, if desired, up to \$1,000, you
can adjust premiums, as well as cover-
age, to your greatest advantage. De-
pendents of married students can be in-
cluded, too. Write for full details. No
obligation, of course.

Serving the educational world since 1910

Available to college groups in Ala., Conn.,
Del., D. C., Fla., Ga., Ky., Md., Mich., N. C.,
Ohio, Pa., S. C., Tenn., Va. and W. Va.

Educators
MUTUAL LIFE INSURANCE CO.
LANCASTER, II, PENNA.

WALL-AWAY CORPORATION

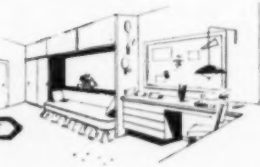
wants you to become more expert
...Learn more about student room design
...here's how:

NEW
1959
*Designer's
Manual*

ADDRESS
WALL-AWAY
WABASH, INDIANA
FOR YOUR FREE COPY

BY THE CREATORS OF FAMOUS
ROOM 22... MORE FUNCTIONAL
... DURABLE ... ECONOMICAL ...

THIS MUCH FOR EVERY STUDENT



Layouts... Estimates... Engineering... Manufacture
Complete integrated service for America's Campuses
WALL-AWAY CORPORATION

COMFORT...

Make your own choice — but,
whether it's an all steel seat
(No. 101) — a contour molded
plywood seat (No. 102) — or a
luxurious, foam rubber cushioned,
upholstered seat (No. 103) you
are sure of the best in portable
seating comfort.



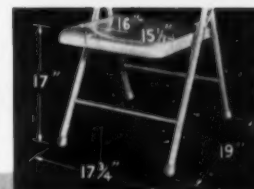
DURABILITY...

Man-handle this chair all you like.
Rack it — bang it — jump on
it! You've never tested one sturdier,
more durable, or one so ready
to withstand most any abuse you
give it. Strong, tubular steel
frames reinforced at seat pivot
points, tubular leg braces, carbon
steel pivot rods and frame
strengtheners, and extra large
hinge rivets are structural features
that assure you the strongest,
most durable folding chair ever!

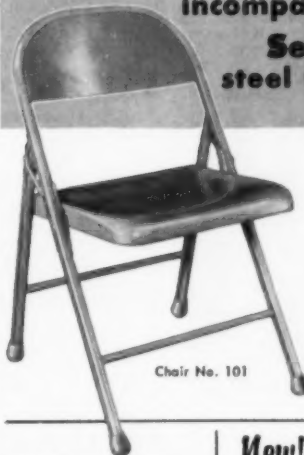


SIZE...

Here's full size seating comfort that
requires relative small floor area.
Adding to comfort, the form-fitting
backrest is a full 8½" deep!



**You get all three in the
incomparable Krueger
Series 100
steel folding chairs!**



Chair No. 101

Series 100 Chairs are wall
savers, too. When open,
backrests do not touch
wall to mar or scuff it. Chairs
are handsomely finished
with durable synthetic
urea baked-on enamel in
a choice of Beige, Mist
Green, Carib Blue or
Azure Grey.

CHAIR TRUCKS

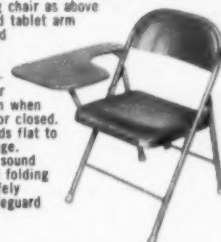
Complete range of trucks
for horizontal or vertical
storage of chairs and
tables. Demountable
ends — Regular and
under-stage models.



Write
— for latest
catalog
describing
complete
line.

New! TABLET ARM CHAIR

Tubular folding chair as above
has a hardwood tablet arm
rigidly mounted
on a tubular
steel support
which automa-
tically raises or
lowers the arm when
chair is open or closed.
Tablet arm folds flat to
chair for storage.
Entire unit is sound
and sturdy and folding
mechanism safely
designed to safeguard
from injury.



KRUEGER
METAL PRODUCTS • GREEN BAY • WISCONSIN



circus
strong men
can't
harm the
world's
strongest
all-steel
folding
chair



Strength...electrically welded tubular steel construction. **Comfort...**contour designed seats and backrests. **Easy folding...**legs glide open and closed. **Safety...**self-adjusting hinges can't slip. **Finish...**snag-free, chip and rust-resistant. In 11 new colors.

Now at a new low price
Samsonite
folding chairs



For church, club, other group seating information, see your Yellow Pages or write: © Shwayder Bros., Institutional Seating Div., Dept. CU3 Detroit 29, Mich.

Combination Study Top Unit Welded Into Integral Frame

Welded into one integral frame, the new ScholarCraft combination study unit is designed for use in classrooms where minimum book storage is required. The design permits complete freedom of movement and the unit is available in 17-inch seat height. The plastic top writing surface of light, natural birch color, is of 11-ply select Northern hardwood in 18 by 24-inch size. The study unit is available in metallic



bronze, metallic green and chrome finishes, with optional book rack. Southeastern Metals Co., 3925 N. 29th St., North Birmingham, Ala.

For more details circle #934 on mailing card

Gray Sheet Glass for Brightness Control

Pennvernon Graylite is the name given to a new gray sheet glass for building areas which require brightness control. Manufactured in $\frac{1}{8}$ and $\frac{7}{32}$ -inch thicknesses, Graylite is formed to reduce the need for supplementary light control measures and is recommended by the manufacturer for glazing elevations facing east, southeast, west, southwest and points between, especially when subject to direct sunlight exposure. It is advantageous for use in ribbon windows and ventilator units in conjunction with light-directing glass block. Graylite permits adequate visibility of the exterior, yet provides a degree of daytime privacy since it is easier to see through it to the outside than to see from the outside in. Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.

For more details circle #935 on mailing card

Improved Fluomeric Has Hard-Glass Outer Bulb

The unique Fluomeric lamp, developed recently as an improved light source for institutional illumination, combines the best features of incandescent, fluorescent and mercury vapor lighting. The long-lasting, high-intensity lamp screws into an ordinary electric socket and requires no auxiliary equipment. Now available is an improved model of the Fluomeric which incorporates a hard-glass, heat-resistant outer bulb plus an extra-sturdy brass strap base, permitting its use outdoors as well as indoors. The 1958 Fluomeric is available in 450 and 750 watts and is designed to burn six to twelve thousand hours with high efficiency illumination. Duro-Test Corp., North Bergen, N.J.

For more details circle #936 on mailing card
(Continued on page 84)



MARKS
THE
SPOT

end black
rubber mark
problems

see pages 86-87



"The Master of Ceremonies"

SOUND
LECTERN

A Complete PA System
in a PORTABLE LECTERN



- "If it's worth saying it's worth hearing."
- YOU are the center of attention.
- It SOUNDS like YOU.
- It goes with YOU.
- It is DEPENDABLE.

DAVIS SOUND

106 Main Street, Madison, N. J.



Super Flaker SF-1F
Max. daily output
350 lbs. Occupies 3
sq. ft. floor space.



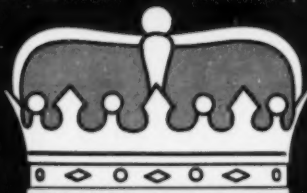
Super Flaker SF-3WSF
Max. daily output
1050 lbs. Occupies 8
sq. ft. floor space.
Storage bin capacity
approx. 350 lbs.



Super Flaker SF-75WSF
Max. daily output 200
lbs. Occupies 5 sq. ft.
floor space. Storage bin
capacity approx. 100 lbs.



Super Bin SB-750
with Scotsman
Super Flaker.



*The Royal Line
of Ice Machines*



Model SF-SE
Max. daily output
up to 2000 lbs.
Takes 5 sq. ft.
floor space.

SCOTSMAN ICE MACHINES

World's Largest Line . . . World's Largest Seller



SUPER CUBER SC-500E
Ice Capacity—Up to 500 lbs.
Storage Capacity — Stainless
steel bin stores up to 400 lbs.



SUPER CUBER SC-100F
Ice Capacity—Up to 110 lbs.
Storage Capacity — Stainless
steel bin stores up to 75 lbs.



SUPER CUBER SC-200F
Ice Capacity—Up to 225 lbs.
Storage Capacity — Stainless
steel bin stores up to 150 lbs.



**Combination Ice Machine
and Drink Dispenser**
Two models—DSI, up to 350
lbs. daily capacity—DS2, up
to 550 lbs. daily.

PLUS DOZENS OF OTHER SCOTSMAN MODELS FOR EVERY ICE NEED!



SCOTSMAN ICE MACHINES

More than 50 models of Super Flakers
Super Cubers • Super Bins • Combination
Ice Machines and Drink Dispensers

Make your own SCOTSMAN ice for as little
as 8¢ per 100 lbs! Send for FREE 44-page
booklet, "How To Use An Ice Machine."



NAME _____

ADDRESS _____

CITY _____ STATE _____

MAIL TO: SCOTSMAN ICE MACHINES
Queen Products Division, King-Seeley Corporation
373 Front Street, Albert Lea, Minnesota
EXPORT OFFICE: 56 Beaver, New York, New York

Coordinated Wall Coverings in Five Basic Qualities

Five basic qualities, ranging from a heavy duty vinyl for maximum protection areas known as Royal Guard, to a lightweight washable wall covering called Princess Guard, make up the new Guard Coordinated System of Architectural Wall Coverings. Developed specifically for institutional and commercial installations, the new Guard System is color coordinated in the five distinct qualities, permitting their interchangeable use in various wall areas without sacrifice of color scheme. Over fifty base colors are used in the new system to allow a full selection. The new line contains a total of twenty patterns. **Columbus Coated Fabrics Corp., 7th at Grant Aves., Columbus 16, Ohio.**

For more details circle #937 on mailing card

Professional-Type Copy Prepared With All-Purpose Scope



The new Superscope is an all-purpose device to facilitate the preparation of professional-type material for duplicating

processes. It is designed to provide the proper surface and light for drawing, lettering, ruling and writing on all stencils, spirit and gelatin masters and paper offset plates, and can be used as a light table for retouching negatives. The Superscope is portable, easy to handle, and folds compactly for storage. It can be used in a standing position with all four legs extended, or in a seated position with the front legs folded under. It features an adjustable light, sliding T-square, and spring steel clamps to hold material, among other advantages. **The Heyer Corp., 1850 S. Kostner Ave., Chicago 23.**

For more details circle #938 on mailing card

"Packaged" Offices Have Walls and Furniture

A cooperative merchandising agreement between Remington Rand Division, Sperry Rand Corporation, and the E. F. Hauserman Company permits the ordering of ready-to-use "packaged" offices. These combine furniture components from the new Aristocrat Modular furniture line introduced by Remington Rand with movable partitions of precision steel and glass construction in Hauserman's new Divider Wall System. Both furniture and wall components are built to the same module, permitting design combinations to suit individual requirements in minimum floor space. Changing office space requirements are easily accommodated by relocating partitions in a matter of minutes.

A practically unlimited variety of work units in Aristocrat Modular furniture is available in a selection of colors. These include desks with end panels, tables, credenzas, tops, file and storage cabinets. The Hauserman Divider Wall System is also available in a variety of compatible color combinations which integrate perfectly with the new furniture line. **Remington Rand Div., Sperry Rand Corp., 315 Fourth Ave., New York 10, and E. F. Hauserman Co., 2100 Keith Bldg., Cleveland 15, Ohio.**

For more details circle #939 on mailing card

DOES ANYONE UNDERSTAND YOUR PROBLEMS?

If your institution's problems are financial, the chances are that few people really do understand them. This is no fault of your Publicity Department.

The nation is aware, in a vague sort of way, that a crisis is developing in our colleges and universities.

But the problem of funds for construction, for faculty salaries, for research, is of little active concern outside academic circles.

The public—corporations, individuals of substance, small business—never has failed to respond to worthwhile financial appeals when they have understood the problem.

Our business is that of interpreting problems for the public so that the public's response is financial in nature, generous in size, continuing in time, and freely offered.



LAWSON ASSOCIATES, INC.

Fund-raising Counsel

Home Office:
53 North Park Avenue
Rockville Centre, New York
ROckville Centre 6-8000

Western Division: 101 Jones Building
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Mutual 2-3691

North Central Division: 24 North Wabash Avenue
Chicago 2, Illinois
Financial 6-4504

Central Division:
3545 Lindell Boulevard
St. Louis, Missouri
Jefferson 5-6022

Southwest Division:
2015 J Street
Sacramento 14, California
Hickory 6-5759

Closed-Circuit TV Camera Adjusts Automatically to Light

Automatic adjustment to changing light levels is a new development in the General Electric line of closed-circuit television cameras. The TE-6-B and TC-2-B cameras utilize a regulated target voltage to maintain a uniform output-signal level over light changes greater than 150 to one. The cameras were developed for use with low cost, unattended closed-circuit television systems. **General Electric Co., Closed-Circuit Television, Syracuse, N.Y.**

For more details circle #940 on mailing card

Improved Ice Remover Works Fast and Effectively

Fast, clean ice removal that is long lasting is claimed for the improved X-73 Ice Remover. It has improved melting action and one hundred pounds will clear five to eight thousand square feet of surface, depending on the temperature and depth of snow and ice. X-73 is supplied in 100 and 300-pound drums. **The Monroe Co., 10707 Quebec Ave., Cleveland 6, Ohio.**

For more details circle #941 on mailing card

(Continued on page 88)

Libbey *Columbian* Tumblers...

*attractive and
durable, for the
most economical
restaurant and
beverage operation*



The complete line of Libbey Columbian Tumblers provides the right glass for every beverage. And because they're Heat-Treated, these tumblers stand up under hard usage... deliver an amazing number of servings to assure operating economy. Economy is assured by the famous Libbey guarantee: "A new glass if the rim of a Libbey 'Safedge' glass ever chips."

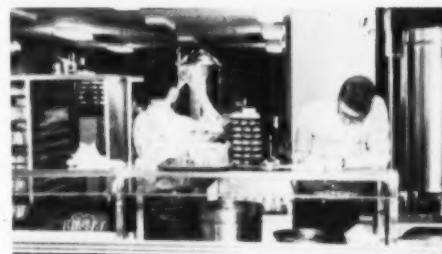
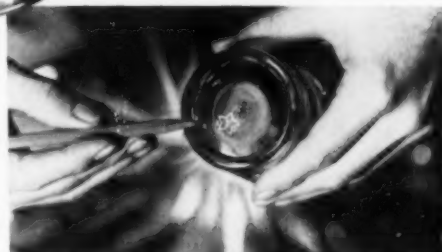
The attractive shape of Columbian Tumblers lends beauty to table settings, and every glass can be decorated with your crest or design for added prestige and distinction.

MAKE YOUR OWN SURVEY

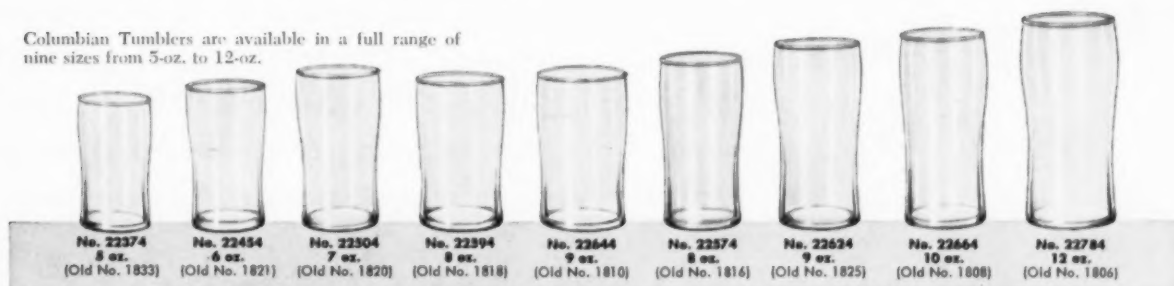
Check the durability and economy of Columbian Tumblers from the Heat-Treated mark on the bottom of every tumbler. Left number shows the year of manufacture, and right designates the quarter.

An audit of Libbey Heat-Treated DATED Glassware in restaurants of 7 major cities showed an average of 1,650 servings per tumbler at a cost of 5.2 cents per thousand servings.

See your Libbey Supply Dealer for details or write to Libbey Glass, Division of Owens-Illinois, Toledo 1, Ohio.



Columbian Tumblers are available in a full range of nine sizes from 5-oz. to 12-oz.



LIBBEY HEAT-TREATED GLASSWARE
AN **I** PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

end black rubber mark problems

...and get **ALL** the floor

Now end problems that make you replace your floor finish before it's really worn out. Like no other finish, Step-Ahead resists scuffing, dirt pick-up and rubber marking. Exclusive polymer ingredient holds hard shine under worst conditions. Easy to remove. Unbelievably easy to maintain.

Johnson's Step-



JOHNSON'S



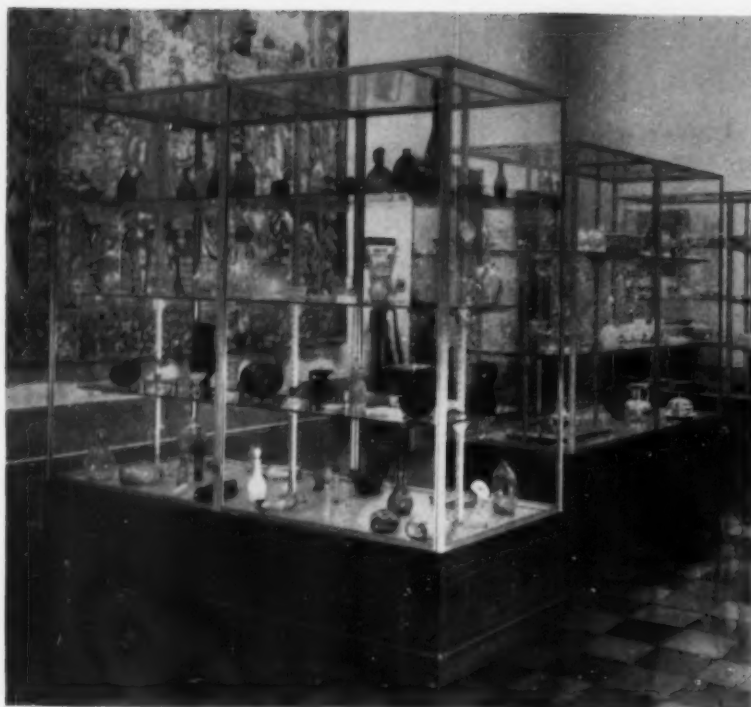
protection you pay for

Step-Ahead can save you up to 60% on floor maintenance costs. Cut work by as much as 50%. Material costs by 20%. In fact, your first drum of tough Step-Ahead can save you enough to pay for the next two.

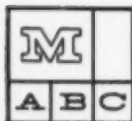


Ahead floor finish

"Johnson's" and "Step-Ahead" are trademarks of S. C. Johnson & Son, Inc., Racine, Wisconsin



THE CASE IS AN IMPORTANT PART OF THE EXHIBIT



A Symbol of High Quality

The exceptionally high quality and structural superiorities of Michaels "Time-Tight" custom-built exhibit cases make them the first choice of exhibitors everywhere. Here are two examples of perfection in exhibition. These cases actually accentuate the beauty of exhibits. They are distinctive in appearance, visibility is unlimited, while exhibits are fully protected against handling and theft as well as the ingress of dust and vermin.

Incorporated in "Time-Tight" cases are such features as: Innerlocking frames (exclusive with Michaels); mitered intersections; no exposed screws (except where necessary for removal of hinged panels), and other worthwhile structural advantages.

"Time-Tight" custom-built cases are available in table, aisle, wall, corner, suspended and recessed styles. They are used extensively in schools, colleges, universities, libraries, science laboratories, and related types of display rooms.

Every school should have a copy of Michaels "Time-Tight" exhibit case catalog. Write for your copy today. No obligation.

—THE MICHAELS ART BRONZE COMPANY, INC.—

P. O. BOX 668-C, COVINGTON, KENTUCKY

OTHER MICHAELS PRODUCTS: Architectural Metal • Curtain Walls
Reversible Windows • Bronze and Aluminum Plaques and Memorials • Parking Meters

Five AC Outlets in Simple Control Device

Five overload-protected and safety-grounded AC outlets are provided from any single AC outlet with the new Five-in-One Control introduced recently. Designed for convenience and safety in laboratory and experimental set-ups, the device has a sturdy metal case and a six-foot power cord equipped with three-prong self-grounding



plug, as well as an adapter with grounding lead for use in standard two-blade sockets. Each of the five outlet sockets has a 15-ampere on-off switch and accepts both three-prong grounding plugs and conventional two-blade plugs. An instant reset circuit breaker protects equipment plugged into the device. Arthur S. LaPine & Co., 6001 S. Knox Ave., Chicago 29.

For more details circle #942 on mailing card

Ice-Melting Chemical in Chip Form

Thin, crystalline chips of ice-melting chemical provide fast and effective ice clearance. Known as Ice-Rem Super, the new product adheres to any surface, regardless of grade, and does not blow away during high winds. The light material works effectively with minimum quantity and leaves no residue. It is white in color and will not discolor floors, tiles or carpets. Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio.

For more details circle #943 on mailing card

Holder and Coated Paper Cup Give Protection With Convenience

A unique combination holder and plastic coated paper cup developed by Lily-Tulip for cafeteria and lunchroom use provides flavor protection and eye appeal with



sanitary single service convenience. The gold and white service is adaptable for coffee, tea, hot chocolate, soups, puddings, boiled eggs and other servings.

The well balanced holder, formed of cyclocac for constant use without scratching or breakage, is attractive and convenient to use. The special China-Cote cup which holds seven fluid ounces, has a rounded, reinforced bottom for stirring. It fits snugly into the holder and is easily disposable after use. Lily-Tulip Cup Corp., 122 E. 42nd St., New York 17.

For more details circle #944 on mailing card
(Continued on page 90)

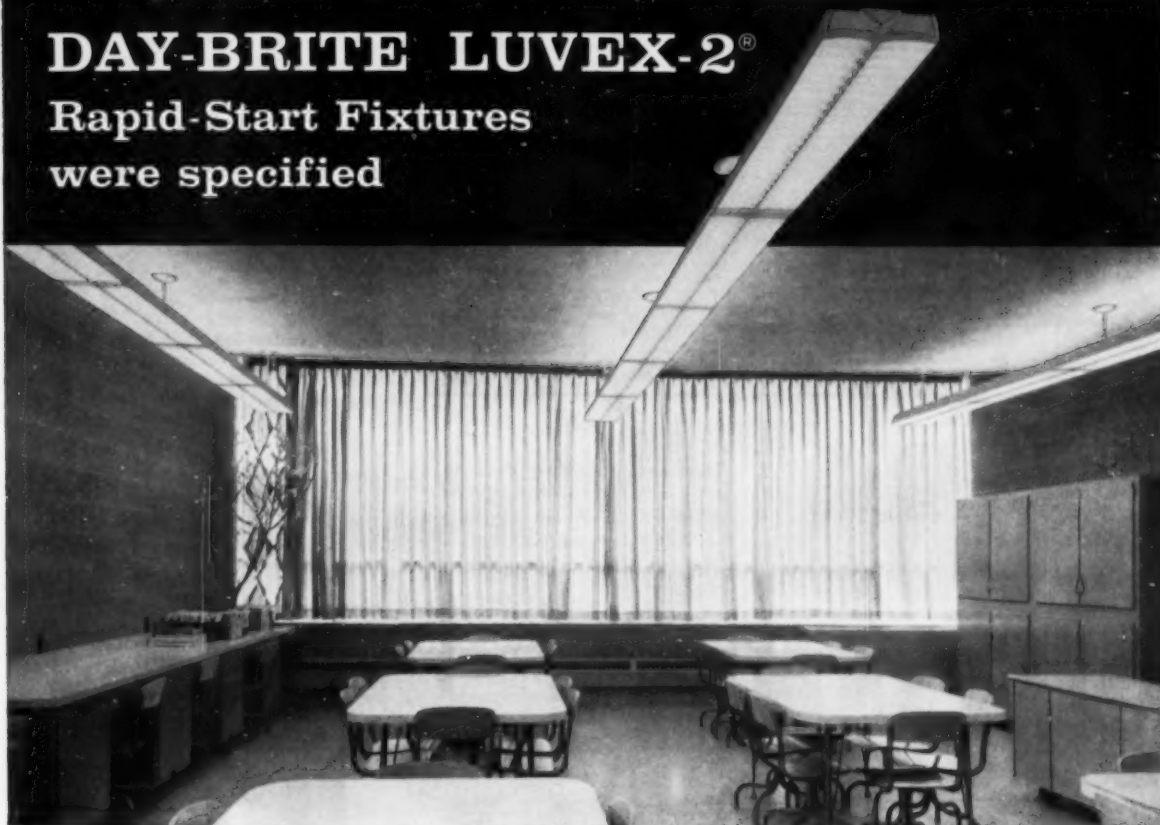


Nothing was sacrificed
in making this school architecturally pleasing
and completely functional. Yet, cost of
construction was only \$15.02 per square foot.

GENERAL SHERMAN JUNIOR HIGH SCHOOL, Lancaster, Ohio
JOSEPH BAKER & ASSOCIATES, Newark, Ohio, Architects
KRAMER, COMER & PASSE, Columbus, Electrical Engineers
AMERICAN ELECTRIC WORKS, Lancaster, Electrical Contractors

DAY-BRITE LUVEX-2®

Rapid-Start Fixtures
were specified



The question to ask before buying *any* school lighting fixtures is "Can we afford *less* than Day-Brite LUVEX?" Are you willing to jeopardize precious young eyes with *less* efficient lighting? Are you willing to risk large maintenance bills with fixtures that cost *more* to clean and relamp? Call your Day-Brite representative, listed in the Yellow Pages. And be sure to check the new, lower prices on LUVEX, America's most popular school lighting fixtures!

Z-585

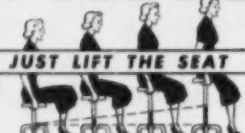


Day-Brite Lighting, Inc., 6276 N. Broadway, St. Louis 15, Mo.
Day-Brite Lighting, Inc., of Calif., 530 Martin Ave., Santa Clara, Calif.

NATION'S LARGEST MANUFACTURER OF COMMERCIAL AND INDUSTRIAL LIGHTING EQUIPMENT

AJUSTRITE

**SPLIT
SECOND
ADJUSTMENT...**



**CHAIRS
and
STOOLS**

ADJUSTMENT...to any Height Desired

No wheels to turn, no bolts, screws or nuts to loosen and adjust. Just lift the seat to desired height. Seat holds securely at point where uplift stops.

for CLASSROOM — LABORATORY — VOCATIONAL



10 YEAR GUARANTEE



Model
TSC-1520

TSC-1520, a posture chair with seat adjustment of 16" to 21", backrest horizontal and vertical adjustment of 3". Ideal for teaching and practicing posture in typing and other business classes. Science classrooms and laboratories use this type to advantage. Also comes with higher adjustment range up to 36". Reasonably priced.

S-1827, the most popular AJUSTRITE stool. Seat adjusts 18" to 27"—has 13" diameter steel seat; hardwood seat, backrest, floor glides optional. All metal construction for lifetime durability. This one stool meets most requirements in majority of laboratories and shops which would otherwise need several sizes of ordinary stools.

32 MODELS IN THE AJUSTRITE LINE

AJUSTO EQUIPMENT CO.

515 Conneaut St. Bowling Green, Ohio

30 DAY FREE TRIAL



Model
S-1827

3,000 CUTTING HOURS

*Based on a 25 week season

NOW IS THE TIME to be critical of your grass cutting operations. Scrutinize every cost factor: original price, repair, replacement, maintenance and man hours for cutting and trimming.

A recent nationwide survey shows the life span of a **LOCKE** to average 3,000 hrs.* or one third longer than comparable equipment.



Learn how a **LOCKE** cuts and trims your lawn in one operation, saves you time, man-power and money.

See your Locke service dealer, or write for Bulletin "ST."



POWER LAWN MOWERS

1321 CONNECTICUT AVE., BRIDGEPORT 1, CONN.

A product of Locke Steel Chain Co.

Package Control System for Unit Ventilators

Combining, in a single prewired package, the function of thermostat and controller for unit ventilators, the new Dual Element Controller is a revolutionary all electric package control system. It consists of a motor operator for damper control, actuated by its own self-contained dual



temperature sensing elements. It is inherently positive positioning, and its high torque rating assures accurate positioning of the damper mechanism at all times.

The Dual Element Controller is mounted within the unit ventilator housing, eliminating the need for a wall thermostat and its room air sensing element is mounted in a sampling chamber for precise control. The package is specifically designed for control of face and by-pass type classroom unit ventilators when used for hot water and chilled water heating, ventilating and air conditioning applications. **Barber-Colman Co., 1300 Rock St., Rockford, Ill.**

For more details circle #945 on mailing card

Stylist Lighting Fixtures Feature Economy in Use

Easy, economical installation and maintenance are features of the new Stylist series of lighting fixtures. The line offers a choice of three shieldings and three different side panels, all interchangeable. The



choice of shieldings permits the one fixture, with different shieldings, to be used in various locations with the proper shieldings for each need.

Stylist fixtures are easily installed with either standard stem sets or slide grip hangers. Spring latches on the louver-cover assembly permit installation or removal without tools. The Stylist is shallow, has low-cost maintenance and is easily cleaned. **Electro Lighting Corp., 1535 S. Paulina St., Chicago 8.**

For more details circle #946 on mailing card
(Continued on page 92)

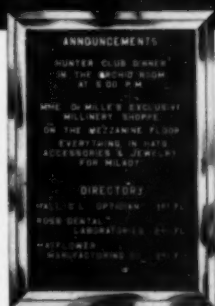


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MAKE SURE IT'S A

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CHANGEABLE LETTER STYLES

for indoors or outdoors, with or without glass doors and lighting, metal or hardwood frames.

TYPES & STYLES FOR EVERY NEED

Handsome, sturdy, highly visible and attention-compelling, DAV-SON BULLETIN BOARDS get the message across quickly and surely.

CORK BOARDS

Wide selection, self-sealing, in metal or wood frames. With or without glass doors and lights.



CHALK BOARDS

All sizes, in black or green, smooth Dur-O-Plate surfaces.



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SINCE 1932

A.C. DAVENPORT & SON, INC.

Dept. CB 311 No. Desplaines St. Chicago 6, Illinois Tel. STate 2-6683



Chair No. 577

(No. 576 arm chair to match)

Wide assortment of chairs and tables.
See your dealer or write us for our
distributor's name.

AMERICAN CHAIR COMPANY

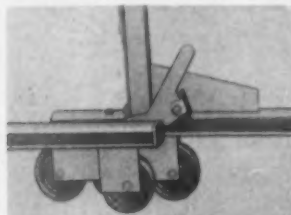
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Automatic Device Locks Roll-Out Gym Seats

A pressed metal gravity latch located on both ends of each tier of Hussey Closed



Deck Roll-Out Gym Seats automatically locks each tier into position as the stand is opened. When fully opened the bleacher is

locked in place and cannot be closed without the use of a special key. When the key is turned to close the stand, it releases the first tier and as each tier rolls back, the latch of each successive tier is released for complete closing. The entirely mechanical system operates efficiently and prevents unauthorized operation of roll-out bleachers.

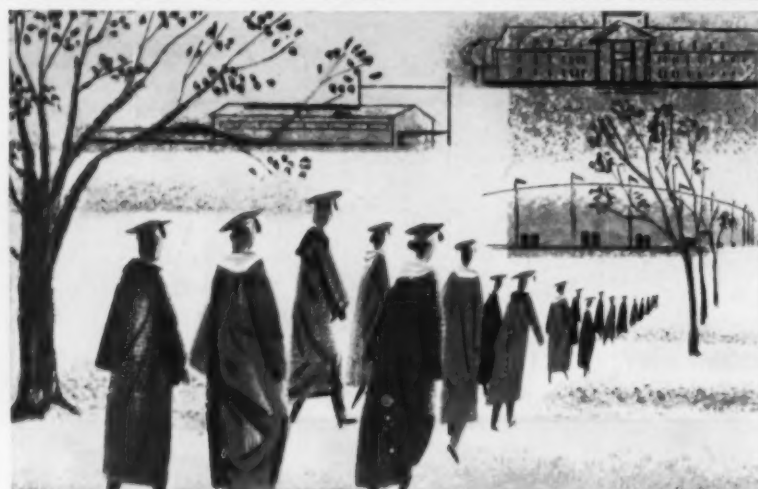
Hussey Mfg. Co., Inc., North Berwick, Me.
For more details circle #947 on mailing card

Fluorescent Unit Line Fills Every Need

Every lighting need where even distribution and proper brightness are desired is supplied in the new LPI line of fluorescent lighting for schools, libraries and offices. Unlimited design and engineering benefits

are offered in the units which may be surface or pendant-mounted, individually or in continuous lines. All units are either solid or luminous sides and pendant-mounted Versataires are available as either direct or indirect type. Luminaires are available in 24, 48 and 96-inch lengths and 12, 18 and 24-inch widths. Versataire units have an overall depth of only four inches. A rigid pre-formed louver frame provided with concealed hinges and locks accommodates six different diffusers thus providing practically any shielding requirement. All units are metal, Underwriters Laboratories approved. Lighting Products Inc., Highland Park, Ill.

For more details circle #948 on mailing card



Some Recent Programs Directed by American City Bureau

COLLEGE	TYPE OF PROJECT
Butler University, Indianapolis, Ind.	Development Program
Loyola Academy, Chicago, Illinois (2nd campaign)	New Building Campaign
Pacific Lutheran College Parklan, Washington	Local Community Campaign
South Dakota State College Brooking, South Dakota	"Stadium for State" Campaign
Tudor Hall Preparatory School Indianapolis, Indiana	Building Campaign

When your plans call for additional funds,
Bring in the Bureau...
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American City Bureau
(Established 1913)

3520 Prudential Plaza, Chicago 1, Illinois
New York & West Coast Representatives

FOUNDING MEMBER AMERICAN ASSOCIATION OF FUND-RAISING COUNSEL

92 For additional information, use postcard facing Cover 3.

Battery Powered Floor Machine Does Entire Cleaning Job

The whole cleaning job of dispensing water, scrubbing and then picking up the dirty water by vacuum is done with the new Model 26 battery-powered floor machine. The four 24-volt battery pack is housed in front of the machine, so designed that a new pack can be substituted



in a few minutes when recharging is necessary. The Model 26 has two tanks, a 10-gallon solution tank and a 22-gallon recovery tank, with a 26-inch brush spread. In addition to the squeegee assembly at the rear, a hand squeegee is provided to pick up water from corners and similar areas. The frame is of all-welded structural steel and the 10-inch roller bearing wheels have neoprene tires. S. C. Lawlor Co., 124 N. Aberdeen Ave., Chicago 7.

For more details circle #949 on mailing card

Lowerator Dispensers In Meals-on-Wheels System

The Model TA-100 mobile cold tray assembly table of the Meals-on-Wheels Food Service System now incorporates two AMF Lowerator Dispensers for increased ease of handling butter plates and saucers when loading trays. Stainless steel coil-spring mechanisms on the Lowerators automatically position saucers or plates at the proper serving level, and dishes are held in alignment by three stainless steel posts. The stainless steel assembly model handles trays, glasses, butter plates, saucers, silverware, packaged items, condiments, tray covers, napkins and standard cold items for 100 patient trays. Addition of the Lowerator Dispensers increases efficiency and eliminates stacking dishes. Meals-on-Wheels System, 5001 E. 59th St., Kansas City 30, Mo.

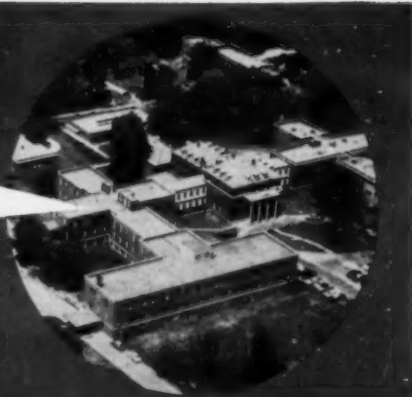
For more details circle #950 on mailing card

(Continued on page 94)

COLLEGE and UNIVERSITY BUSINESS

Drop in for a Kitchen Close-up...

at DECATUR-MACON HOSPITAL



Installation by Hertz's Equipment Co., Peoria, Ill. • Fabrication by Southern Equipment Co., St. Louis, Mo.

SEE HOW

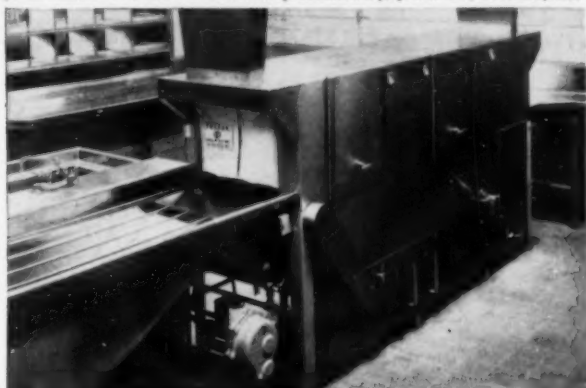
TOLEDOS

STREAMLINE FOOD SERVICE

In the newest addition to the progressive Decatur and Macon County Hospital in Decatur, Illinois, Toledo Kitchen Machines help streamline operations and trim costs! For dishwashing, disposing and peeling, Toledos get the call in this well-planned hospital installation.

Whether your kitchen caters to small or large volume feeding, it's easy to select just the right equipment for your layout and service needs from the wide line of Toledos. Choose Toledo dishwashers for advanced design in counter, door type, conveyor and conveyor prewash machines . . . modern new Toledo food

machines, and fast, sanitary Toledo disposers in a full range of sizes. Write today for new catalogs on Toledos to help you save time, money and manpower in your kitchen.



Toledo Conveyor Dishwasher with Prewash keeps dishes and glasses sparkling clean. Automatic through wash and rinse cycles with high hourly production.

Toledo Peeler, with Peel Disposer, provides fast, double-action peeling, and effortless disposal of peelings. Another Toledo Disposer, in corner, serves two sink areas.



Nine Toledo Disposers are on the job at key work areas to insure sanitation.

TOLEDO SCALE CORPORATION

KITCHEN MACHINE DIVISION • 245 HOLLENBECK STREET, ROCHESTER, N. Y.

Complete Line!



HI-SPEED
SAWS



MIXERS



STEAK
MACHINES



CHOPPERS



DOOR-TYPE
DISHWASHERS

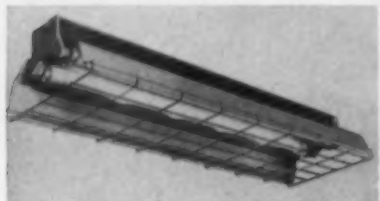


COUNTER
DISHWASHERS



Fluorescent Luminaire for Gyms and Other Arenas

Designed especially for lighting gymnasiums and other comparable buildings, the new Wakefield 20.30 fluorescent lumi-



naire directs 80 percent of its light downward with the remainder designed to dispel the cave-like ceiling effect usually

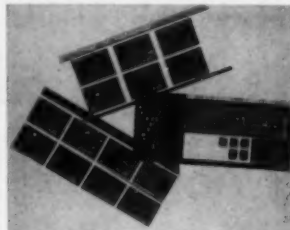
found in large structures. The two-lamp luminaire utilizes GE Power Groove lamps which give increased light, thus reducing the number of units required. The luminaire comes in four and eight-foot lengths with a porcelain enamel reflector, wire guard and the electrical channel designed for easy handling under high ceilings. The Wakefield Co., Vermilion, Ohio.

For more details circle #951 on mailing card

Microfilm Records Unitized With Actifilm

A single image or a series of images from anywhere on a roll of positive or negative microfilm can be unitized with Actifilm without cutting or harming the roll. The roll film can then be stored away for refer-

ence. Actifilm is a new diazo-type microfilm in card weights and card sizes. It is particularly useful for preparing working microfilm copies of records, research and library materials, architectural tracings or engineering drawings and other microfilmed material. Used in conjunction with the Actifilm Printer or the new low-cost Unitizer, Actifilm permits microfilm use as and when needed at low cost. Actifilm is quickly developed by a dry process and does not require a darkroom. Used in viewing or enlarging devices it gives true reproductions. The shape and thickness of



Actifilm, which is available in four sizes, permits quick and compact filing. Ozalid Div., Microline Products Group, General Aniline & Film Corp., 20 Corliss Lane, Johnson City, N.Y.

For more details circle #952 on mailing card

Floors and Carpets Cleaned With Gyro-Magic Machine

The Gyro-Matic floor machine is designed for heavy duty use, yet it is light enough to be handled by maids. It is a triple-use machine since it will shampoo carpets, scrub floors or wax and polish a floor. Carpet cleaning and floor scrubbing can be done with the same "even-flo" brush and a softer brush or steel wool or lambswool pad is used for polishing. Advance Floor Machine Co., 4100 Washington Ave. N., Minneapolis 12, Minn.

For more details circle #953 on mailing card

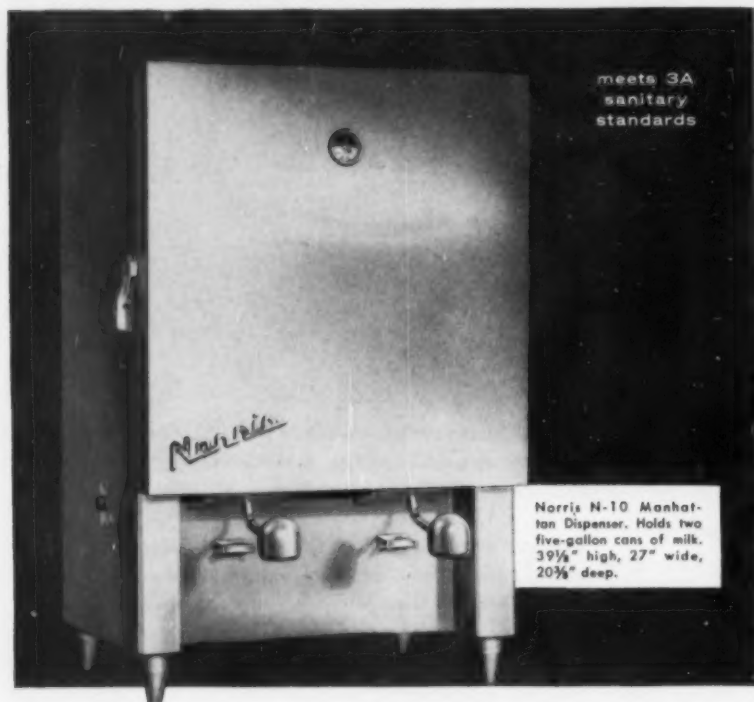
Wood-Grain Plateboard Is Low-Cost Surfacing Material

Low cost and luxurious appearance are features of the new paneling material known as Wood-Grain Plateboard. The im-



proved hardboard, available in both smooth-one-side and smooth-two-sides types, is available in oak or walnut grain, patterned in Random, Verti and Blok scoring. Also available with a smooth surface with exceptional paintability, the improved Plateboard is manufactured by a process which achieves a close tolerance and precise adherence to specifications. Abitibi Corp., Penobscot Bldg., Detroit 26, Mich.

For more details circle #954 on mailing card
(Continued on page 96)



meets 3A
sanitary
standards

Norris N-10 Manhattan Dispenser. Holds two five-gallon cans of milk. 39 1/4" high, 27" wide, 20 3/4" deep.

Faster service • Cleaner conditions with Norris Milk Dispensers

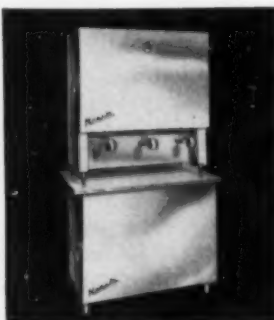
Norris Dispensers not only provide faster service in your lunchroom or cafeteria, but they eliminate messy cartons and bottles as well. And of course you know you are serving tastier milk—serving it the way it should be served, cold and aerated. There is a Norris Dispenser for every need . . . every type of milk serving. Ask your dairy.

After more than 10 years, over 95 percent of Norris Dispensers are still in use!



Norris
DISPENSERS INC.

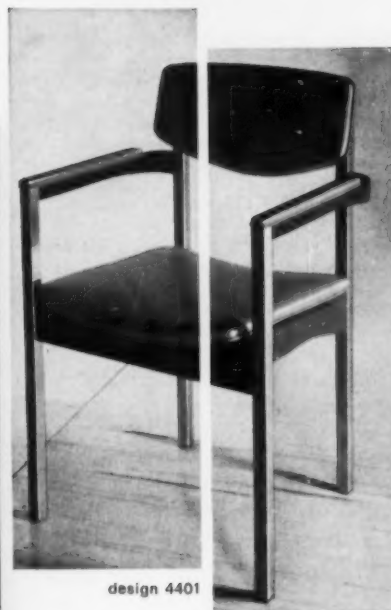
MINNEAPOLIS 8, MINNESOTA



N-15 Manhattan Dispenser on N-15 Refrigerated Storage Stand. Each holds three five-gallon cans. 39 1/4" high, 37 1/4" wide, 17 3/4" deep. Stand is 34 1/4" high, 39 3/4" wide, 24" deep.



design 4381



design 4401

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Monroe FOLDING PEDESTAL BANQUET TABLES

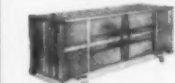
SOLD DIRECT

Over 50 years experience and service back Monroe Folding Tables and other products. Largest factory in the world selling folding tables direct to schools, churches, lodges, clubs, hotels, and other institutions.

Factory Prices and Discounts

Our catalogs are our only salesmen. Our manufacturing and distribution savings are passed on to the organizations and institutions, like the over 51,000 whom we have served.

All Steel Folding Chairs
Monroe-Approved chairs in attractive range of styles, sizes at direct prices. Excel in comfort, durability and ease of handling.



Transport Trucks For Tables and Chairs

Any room set up or cleared in a jiffy. One man can do it. For both moving and storing. Model TSS shown.



Portable Partitions

Panels in tubular steel frames, on swivel glides or casters. Idle space converted to useful areas. Also chalkboard finished, with cork tack boards as shown.



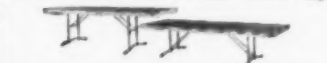
MONROE
No. 3
Deluxe
30x96 in.
30 in. high

**Easily Seats 10
(5 on each side)**

Maximum seating capacity and comfort. Exclusive MONROE folding steel pedestals eliminate knee interference. Folds flat. 12 tables "stack" only 29 inches high. Ideal for multiple dining and recreational activities. This model offered in 8 sizes, in 3 Monroe Top Finishes—Tempered Masonite (as shown), Ormacel Blon-D and Melamine Plastic.

Monroe Fold Lite Utility Tables

Conventional steel folding legs. 16 sizes from 32" x 32" up to 3' x 10' and 4' x 8', special sizes to order. Masonite and Ormacel Blon-D tops.



Adjustable Height Folding Tables

Can be adjusted any height 20 to 30 inches. Folding pedestals or legs. No tools required. Will not slip or collapse.



Monroe Folding Risers and Platforms

Most modern staging choral groups, etc. Ruggedly built sections with steel folding legs. Many standard settings or specials to order.



COMPLETE CATALOG FREE

House, purchasing or kitchen committees of churches, schools, clubs, lodges, etc. Write at once for newest Monroe Line Institutional Catalog in colors. Complete prices, discounts and terms. Address:

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Literature and Services

• A free assortment of Nabisco Institutional Varieties in individual service packets is available to institutional food buyers from National Biscuit Co., 425 Park Ave., New York 22, on request. Service suggestions, cost per serving, package descriptions and other data are included in a booklet, "The Best Food Deserves the Finest Crackers," which is included in the assortment.

For more details circle #955 on mailing card

• A 44-page book on "The New Dimensions of Modern Environmental Sanitation" is available from Airkem, Inc., 241 E. 44th St., New York 17. Designed as an informative guide to understanding of the role of cleaning in an institution, and planned for use by the administrator, the

booklet is practical as an instruction book for professional and maintenance personnel.

For more details circle #956 on mailing card

• "Magnetic Sound Recording for 16mm Motion Pictures" is the title of a 68-page publication describing the process of addition of magnetic sound tracks to 16mm motion pictures. Published by Eastman Kodak Co., Rochester 4, N. Y. as a guide to potential users of magnetic sound motion pictures, the booklet covers all the facets of preparing magnetic sound films.

For more details circle #957 on mailing card

• The story of "Kemrock - The Superior Laboratory Working Surface" is told in an 8-page booklet available from Kewanee Mfg. Co., 5069 S. Center St., Adrian, Mich. What Kemrock is, how and why

it was developed, and a pictorial story of how it is produced, chemical and physical test data on the product and its use as a heavy duty laboratory work top are some of the subjects covered.

For more details circle #958 on mailing card

• A colorful, illustrated 12-page catalog showing the complete line of Azrock Flooring Products is available from the Azrock Floor Products Div., Uvalde Rock Asphalt Co., San Antonio, Texas. Included are product descriptions, where to install, and brief architectural specifications on Azrock asphalt tile, Azphlex vinylized tile, Vina-Lux vinyl asbestos tile, and Duraco vinyl industrial tile.

For more details circle #959 on mailing card

• "How Aqua-Dial Gives Life to Your Landscape" is the title of the four-page Bulletin A-30 released by Automatic Valve Systems Co., 1535 Monrovia Ave., Newport Beach, Calif. The bulletin discusses how an Aqua-Dial lawn sprinkler system permits the grounds superintendent to tailor his watering programs to his needs.

For more details circle #960 on mailing card

• More than 450 different pieces of apparatus and instruments for the laboratory are described and illustrated in the new 1959 Catalog released by Labline, Inc., 3070 W. Grand Ave., Chicago 22. The catalog is a multi-ring binder for ease in using since pages lie flat when opened.

For more details circle #961 on mailing card

• Booklet 1020 offered by American-Olean Tile Co., 1000 Cannon Ave., Lansdale, Pa., presents illustrations in color of interesting wall and floor treatment. The 12-page booklet, "Crystalline Glazes and Scored Tile," also contains a color chart.

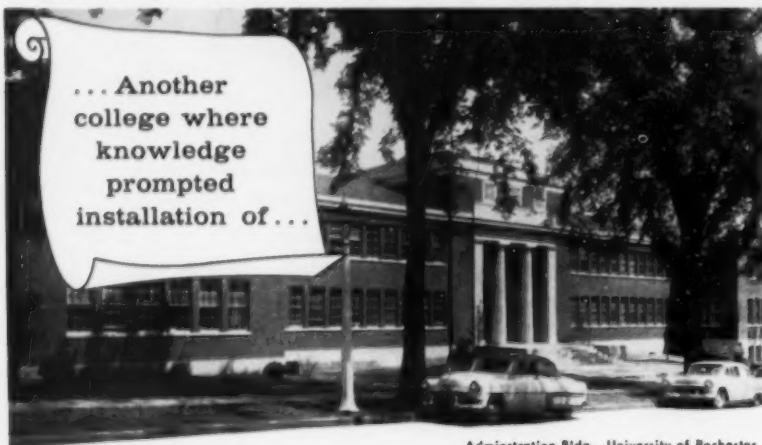
For more details circle #962 on mailing card

Suppliers' News

Beverage-Air equipment, including Milk Coolers and other beverage dispensers, is now handled by the Beverage-Air Sales Co., P.O. Box 4044, Sta. B, Spartanburg, So. Car. The equipment will continue to be manufactured by The Punxsutawney Co., Punxsutawney, Pa., but the new factory location in South Carolina is designed to facilitate distribution.

The Clarke Sanding Machine Co., Muskegon, Mich., manufacturer of floor maintenance machines, announces the change of its corporate name to Clarke Floor Machine Company, effective January 1, 1959. The name change was effected to express more accurately the product diversification developed by the company during the past twelve years. The company has also purchased a new building, a move necessitated by business growth and expansion of its line of equipment.

H-P Products, Inc., 514 W. Gorgas St., Louisville, Ohio, announces the addition of Trayvac built-in vacuum chalkboard-tray inlets to its line of maintenance appliances. Designed for rapid removal of chalkdust from trays and erasers before it can contaminate the air or soil the floor, Trayvac can be installed on chalkboards in new or existing buildings equipped with a central vacuum system.



Administration Bldg., University of Rochester

SPENCER Vacuslot® the Built-In Cleaning System

Investigation will indicate to you, too, the wisdom of insisting on Spencer Vacuslot... the installed system that makes possible:



FASTER CLEANING—Dirt and litter are carried away by vacuum. No time consuming pick-up... no transporting of bulky equipment.

BETTER CLEANING—Dust and germs are whisked off through an enclosed system... cannot recirculate into the air. Mops are vacuum cleaned simply by passing back and forth across Vacuslot.

REDUCED MAINTENANCE COSTS—More floor area cleaned per man hour means smaller staff required.

Vacuslot systems are adaptable—without alteration—to conventional vacuum cleaning and water pick-up. Hose connects easily into openings provided in Vacuslots. Use of a lightweight, portable separator tank permits pick-up of scrubbing water.

Request Bulletin 153C



ALSO
MANUFACTURERS
OF PORTABLE
VACUUM
CLEANERS



The **SPENCER**
TURBINE COMPANY
HARTFORD 6, CONNECTICUT

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Key

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The two cards below are detachable and are addressed to us. With this flap folded out you can turn through the magazine for the items on which you want further information.



When, in either an advertisement or "What's New" you locate the product, turn to the index to advertisements on the following page or to the index of "What's New" items (left) where you will find the key number for the item. Items advertised are listed alphabetically by manufacturer. "What's New" items are in Key Number order. Circle the corresponding key number on the card below for each item in which you are interested. The second card is for the use of someone else who may also want product data.



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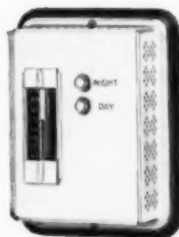


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